



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : NW-4-L74-830-RA-DIM-UNV\_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] GEN FROM BALLABS TEST NO. 20990.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 2023-08-09  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 48 INCH LINEAR LED SURFACE LUMINAIRE  
 [MORE] WHITE REFLECTOR w/RADIAL RIBBED FROST ACRYLIC LENS  
 [MORE] 0-10V DIMMING DRIVER  
 [LUMCAT] NW-4-L74-830-RA-DIM-UNV  
 [LAMPCAT] 22 INCH HLM LED ARRAYS

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7333
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	55.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.98 ft
Luminous Width (90-270)	0.38 ft
Luminous Height	0.15 ft

**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	12830	11759	12067
55	10940	10190	10729
65	8801	8441	9290
75	6826	7157	8027
85	3203	6452	7473

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : NW-4-L74-830-RA-DIM-UNV\_.IES**

**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	2367.949	2367.949	2367.949	2367.949	2367.949
5	2387.803	2356.495	2350.386	2350.386	2343.514
10	2344.277	2317.551	2319.078	2325.187	2317.551
15	2265.626	2245.008	2261.808	2280.134	2277.843
20	2164.066	2155.666	2183.156	2216.755	2218.282
25	2023.562	2032.725	2082.360	2126.649	2138.103
30	1875.422	1891.458	1962.473	2019.744	2041.889
35	1690.629	1728.046	1821.969	1896.803	1922.766
40	1514.235	1554.706	1667.720	1772.335	1796.770
45	1305.007	1363.804	1501.254	1614.268	1644.812
50	1109.523	1182.066	1332.496	1456.965	1490.563
55	916.330	987.346	1159.921	1288.971	1328.678
60	733.064	813.243	990.400	1109.523	1154.576
65	556.670	641.431	814.770	966.728	999.563
70	410.821	485.655	667.394	814.770	853.714
75	278.717	361.950	545.980	678.084	707.101
80	155.012	256.572	436.784	556.670	597.905
85	54.980	173.339	346.678	458.165	492.527
90	0.000	114.541	270.317	379.513	401.658
95	0.000	73.306	213.047	310.789	344.387
100	0.000	48.871	163.412	257.336	284.062
105	0.000	32.835	129.050	207.701	237.482
110	0.000	15.272	102.324	170.285	198.538
115	0.000	9.927	81.706	143.558	163.412
120	0.000	0.000	64.907	117.596	138.213
125	0.000	0.000	50.398	93.924	109.960
130	0.000	0.000	39.708	74.070	87.815
135	0.000	0.000	32.072	57.271	70.252
140	0.000	0.000	16.799	43.526	53.453
145	0.000	0.000	6.109	33.599	38.944
150	0.000	0.000	0.000	29.017	32.835
155	0.000	0.000	0.000	27.490	29.017
160	0.000	0.000	0.000	16.036	26.726
165	0.000	0.000	0.000	5.345	9.163
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : NW-4-L74-830-RA-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	862.85	N.A.	11.80
0-30	1821.52	N.A.	24.80
0-40	2956.83	N.A.	40.30
0-60	5128.05	N.A.	69.90
0-80	6477.84	N.A.	88.30
0-90	6825.15	N.A.	93.10
10-90	6601.3	N.A.	90.00
20-40	2093.98	N.A.	28.60
20-50	3244.52	N.A.	44.20
40-70	2967.39	N.A.	40.50
60-80	1349.8	N.A.	18.40
70-80	553.62	N.A.	7.60
80-90	347.30	N.A.	4.70
90-110	343.33	N.A.	4.70
90-120	422.45	N.A.	5.80
90-130	467.91	N.A.	6.40
90-150	501.91	N.A.	6.80
90-180	507.51	N.A.	6.90
110-180	164.17	N.A.	2.20
0-180	7332.65	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	223.85
10-20	639.00
20-30	958.67
30-40	1135.31
40-50	1150.54
50-60	1020.68
60-70	796.18
70-80	553.62
80-90	347.30
90-100	212.54
100-110	130.79
110-120	79.12
120-130	45.46
130-140	24.04
140-150	9.95
150-160	4.64
160-170	0.96
170-180	0.00

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : NW-4-L74-830-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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	106	101	96	92	102	98	93	90	92	89	85	87	84	82	82	80	78	75
2	96	87	80	74	93	85	78	73	80	75	70	76	71	67	72	68	65	62
3	87	77	68	61	84	74	67	60	70	64	58	67	61	57	63	59	55	52
4	80	68	59	52	77	66	58	51	63	55	50	59	53	48	57	51	47	45
5	74	61	51	45	71	59	51	44	56	49	43	53	47	42	51	45	41	39
6	68	55	46	39	66	53	45	39	51	43	38	48	42	37	46	40	36	34
7	63	49	41	34	61	48	40	34	46	39	33	44	38	33	42	36	32	30
8	59	45	37	31	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	28	53	41	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	24	22

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : NW-4-L74-830-RA-DIM-UNV\_.IES**

**UGR TABLE - CORRECTED**

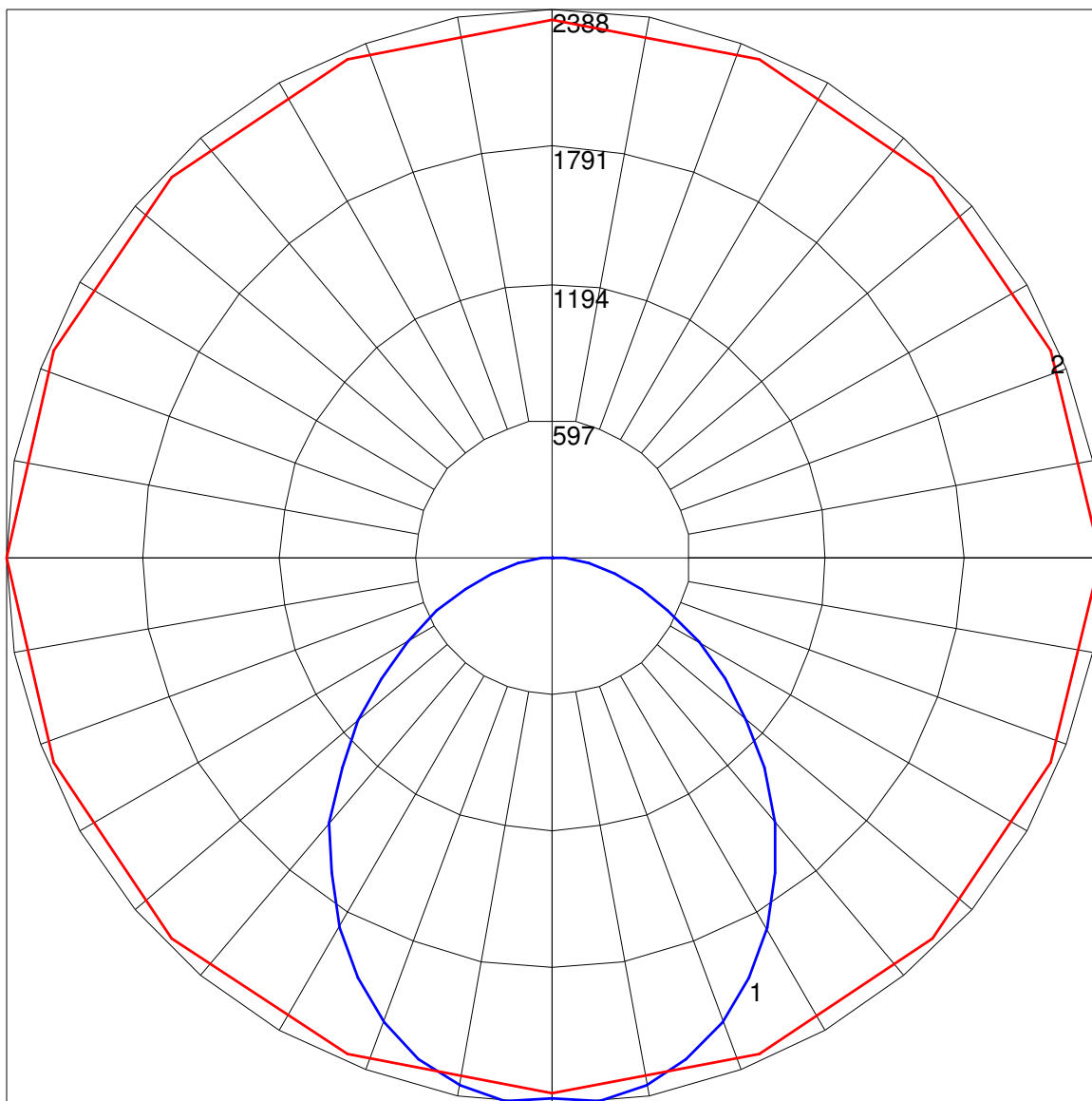
Reflectances

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	17.8	19.3	18.2	19.7	20.2	20.8	22.3	21.3	22.7	23.2
	3H	19.0	20.3	19.5	20.8	21.3	23.0	24.4	23.5	24.9	25.4
	4H	19.4	20.7	19.9	21.1	21.7	24.1	25.4	24.6	25.9	26.4
	6H	19.6	20.8	20.1	21.3	21.8	25.2	26.4	25.7	26.9	27.4
	8H	19.6	20.8	20.2	21.3	21.9	25.8	26.9	26.3	27.4	28.0
	12H	19.6	20.7	20.2	21.3	21.9	26.4	27.5	26.9	28.0	28.6
4H	2H	18.7	20.0	19.2	20.5	21.0	21.1	22.4	21.6	22.9	23.4
	3H	20.2	21.3	20.7	21.8	22.4	23.6	24.7	24.1	25.2	25.8
	4H	20.7	21.7	21.2	22.2	22.8	24.8	25.8	25.3	26.4	27.0
	6H	21.0	21.9	21.5	22.4	23.1	26.1	27.0	26.7	27.6	28.2
	8H	21.1	21.9	21.6	22.5	23.1	26.8	27.6	27.3	28.2	28.8
	12H	21.1	21.9	21.7	22.5	23.1	27.5	28.3	28.1	28.9	29.5
8H	4H	21.4	22.2	22.0	22.8	23.4	25.0	25.8	25.5	26.4	27.0
	6H	21.9	22.6	22.5	23.2	23.9	26.4	27.1	27.0	27.7	28.4
	8H	22.1	22.7	22.7	23.3	24.0	27.2	27.9	27.8	28.5	29.1
	12H	22.2	22.8	22.8	23.4	24.1	28.2	28.7	28.8	29.3	30.0
12H	4H	21.6	22.4	22.2	23.0	23.6	25.0	25.7	25.6	26.3	27.0
	6H	22.2	22.9	22.9	23.5	24.1	26.5	27.1	27.1	27.7	28.4
	8H	22.5	23.1	23.1	23.7	24.4	27.3	27.9	27.9	28.5	29.2

Maximum UGR = 30.0

POLAR GRAPH



Maximum Candela = 2387.803 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.)