



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 82-4-L64-840-(L40)-WG-8214-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20804.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 01-19-2024

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 4-28 LED 22" ARRAYS 4' INDUSTRIAL LUMINAIRE

[MORE] WHITE REFLECTOR w/OPEN BOTTOM

[LUMCAT] 82-4-L64-840-(L40)-WG-8214-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3817
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	160
Total Luminaire Watts	23.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.34
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.44
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.08 ft
Luminous Height	0.00 ft



LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3650	3594	3547
55	3566	3532	1832
65	3347	1823	1788
75	2661	591	551
85	920	460	204

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	1425.433	1425.433	1425.433	1425.433	1425.433
5	1448.154	1423.042	1410.486	1408.094	1408.692
10	1432.608	1408.094	1395.538	1393.146	1393.146
15	1408.692	1383.579	1371.023	1403.311	1425.433
20	1374.013	1348.900	1375.806	1366.240	1388.363
25	1326.179	1305.850	1336.344	1286.717	1287.913
30	1273.563	1258.615	1241.873	1234.698	1233.502
35	1206.596	1235.894	1171.917	1177.896	1171.917
40	1122.290	1177.896	1107.940	1102.558	1094.786
45	1039.777	1036.190	1023.633	1011.077	1010.479
50	934.544	925.575	920.792	893.885	568.619
55	823.929	821.538	816.156	426.913	423.325
60	694.779	705.542	375.492	367.719	367.719
65	569.815	567.423	310.319	299.556	304.340
70	420.933	425.717	239.167	83.110	65.173
75	277.433	168.613	61.585	56.802	57.400
80	142.902	72.946	44.246	37.071	34.679
85	32.288	26.906	16.144	8.371	7.175
90	1.196	11.360	4.185	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	528.34	N.A.	13.80
0-30	1132.6	N.A.	29.70
0-40	1878.77	N.A.	49.20
0-60	3265.55	N.A.	85.50
0-80	3790.04	N.A.	99.30
0-90	3817.36	N.A.	100.00
10-90	3682.49	N.A.	96.50
20-40	1350.43	N.A.	35.40
20-50	2131.51	N.A.	55.80
40-70	1770.15	N.A.	46.40
60-80	524.49	N.A.	13.70
70-80	141.11	N.A.	3.70
80-90	27.32	N.A.	0.70
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	3817.36	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	134.86
10-20	393.48
20-30	604.26
30-40	746.18
40-50	781.07
50-60	605.70
60-70	383.38
70-80	141.11
80-90	27.32
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	92	82	75	69	90	81	74	68	78	72	67	75	70	66	73	68	65	63
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47
6	72	59	51	44	70	58	50	44	56	49	44	55	48	43	53	48	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	45	39	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	34	28	40	33	28	39	33	28	38	32	28	26

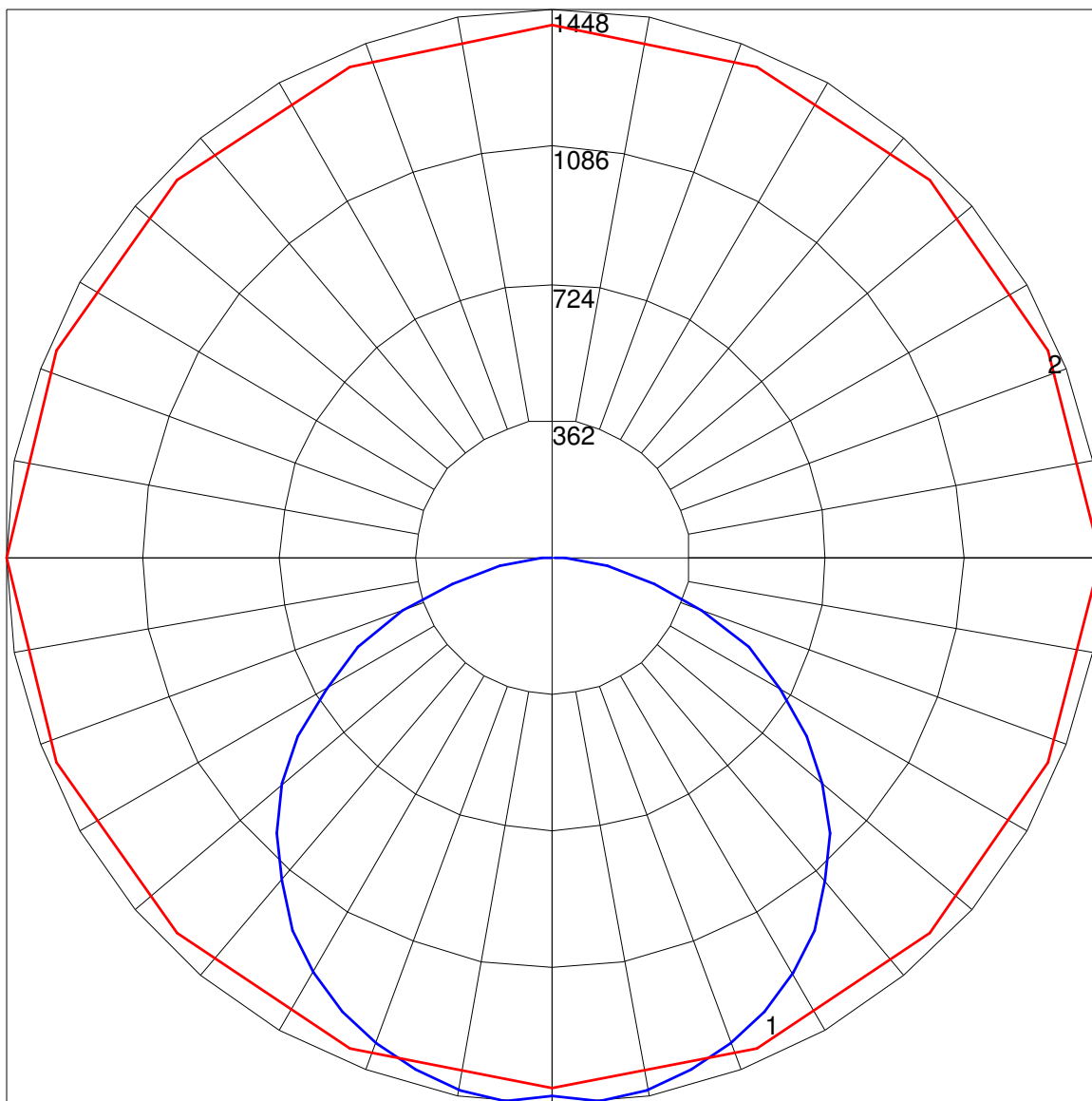
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UGR TABLE - CORRECTED

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	17.4	18.9	17.7	19.2	19.6	12.8	14.4	13.2	14.7	15.0
	3H	19.1	20.5	19.5	20.9	21.2	13.4	14.8	13.8	15.2	15.5
	4H	19.6	20.9	20.0	21.2	21.6	13.5	14.8	13.9	15.2	15.6
	6H	19.9	21.1	20.3	21.4	21.8	13.6	14.8	14.0	15.2	15.6
	8H	19.9	21.1	20.4	21.5	21.9	13.6	14.8	14.0	15.1	15.5
	12H	19.9	21.0	20.4	21.4	21.8	13.6	14.7	14.0	15.1	15.5
4H	2H	17.4	18.8	17.8	19.1	19.5	13.5	14.9	13.9	15.2	15.6
	3H	19.5	20.5	19.9	20.9	21.3	14.3	15.3	14.7	15.7	16.1
	4H	20.0	20.9	20.4	21.3	21.8	14.4	15.3	14.8	15.8	16.2
	6H	20.3	21.1	20.7	21.6	22.0	14.5	15.3	14.9	15.8	16.2
	8H	20.4	21.2	20.8	21.6	22.1	14.5	15.3	15.0	15.7	16.2
	12H	20.4	21.1	20.9	21.6	22.1	14.5	15.2	15.0	15.7	16.1
8H	4H	19.9	20.7	20.4	21.1	21.6	14.7	15.5	15.1	15.9	16.4
	6H	20.2	20.9	20.7	21.4	21.9	14.8	15.5	15.3	16.0	16.4
	8H	20.4	20.9	20.9	21.5	21.9	14.9	15.4	15.4	16.0	16.4
	12H	20.4	20.9	20.9	21.4	22.0	14.9	15.4	15.4	15.9	16.4
12H	4H	19.9	20.6	20.4	21.1	21.5	14.7	15.4	15.2	15.9	16.4
	6H	20.2	20.8	20.8	21.3	21.8	14.9	15.4	15.4	15.9	16.4
	8H	20.3	20.9	20.9	21.4	21.9	14.9	15.4	15.4	15.9	16.5

Maximum UGR = 22.1

POLAR GRAPH



Maximum Candela = 1448.154 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.)