



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L32-935-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 18635.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2024-01-08
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 4'SUSPENDED INDUSTRIAL LED LUMINAIRE
[MORE] WHITE REFLECTOR w/OPEN BOTTOM
[MORE] 0-10V DIMMING DRIVER
[LUMCAT] 80-4-L32-935-DIM-UNV
[LAMPCAT] HLM 90 CRI 3500K CCT
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] INDOOR
[_SEARCH_MOUNTING] SUSPENDED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2665
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	20.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.88 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2891	2821	2814
55	2786	2724	2713
65	2653	2595	1387
75	2134	1185	227
85	959	419	315

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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	1001.424	1001.424	1001.424	1001.424	1001.424
5	989.528	986.129	983.155	986.979	991.228
10	969.559	966.160	981.455	984.005	974.233
15	947.041	956.813	946.191	938.543	938.543
20	918.574	939.818	909.652	904.978	904.978
25	881.610	886.284	871.413	868.864	868.864
30	834.450	827.227	821.703	818.729	817.880
35	784.315	777.092	770.719	769.869	768.169
40	729.081	717.185	713.786	712.511	711.661
45	665.350	651.754	649.205	648.355	647.506
50	590.998	581.226	578.251	577.402	577.402
55	520.044	509.422	508.572	506.448	506.448
60	439.318	431.246	430.396	428.696	427.422
65	364.965	357.743	356.893	274.892	190.768
70	278.716	272.343	217.960	147.856	150.830
75	179.721	179.721	99.845	86.249	19.119
80	95.171	61.607	17.420	14.446	14.446
85	27.192	14.446	11.896	8.922	8.922
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	361.49	N.A.	13.60
0-30	764.44	N.A.	28.70
0-40	1248.1	N.A.	46.80
0-60	2204.46	N.A.	82.70
0-80	2647.65	N.A.	99.30
0-90	2664.99	N.A.	100.00
10-90	2571.02	N.A.	96.50
20-40	886.61	N.A.	33.30
20-50	1388.68	N.A.	52.10
40-70	1272.37	N.A.	47.70
60-80	443.18	N.A.	16.60
70-80	127.18	N.A.	4.80
80-90	17.34	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	2664.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	93.97
10-20	267.52
20-30	402.95
30-40	483.66
40-50	502.07
50-60	454.29
60-70	316.01
70-80	127.18
80-90	17.34
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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	88	85
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	59	54	52
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	41	39
7	66	53	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	33	27	39	32	27	38	32	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

X=2H	Y=2H	15.9	17.5	16.3	17.8	18.1	UGR Viewed Endwise			
	3H	17.8	19.2	18.2	19.6	19.9	15.8	17.4	16.2	17.8
	4H	18.4	19.8	18.8	20.1	20.5	16.5	18.0	16.9	18.3
	6H	18.8	20.0	19.2	20.4	20.8	16.6	17.9	17.0	18.3
	8H	18.8	20.0	19.3	20.4	20.8	16.5	17.8	17.0	18.2
	12H	18.9	20.0	19.3	20.4	20.8	16.5	17.7	16.9	18.1

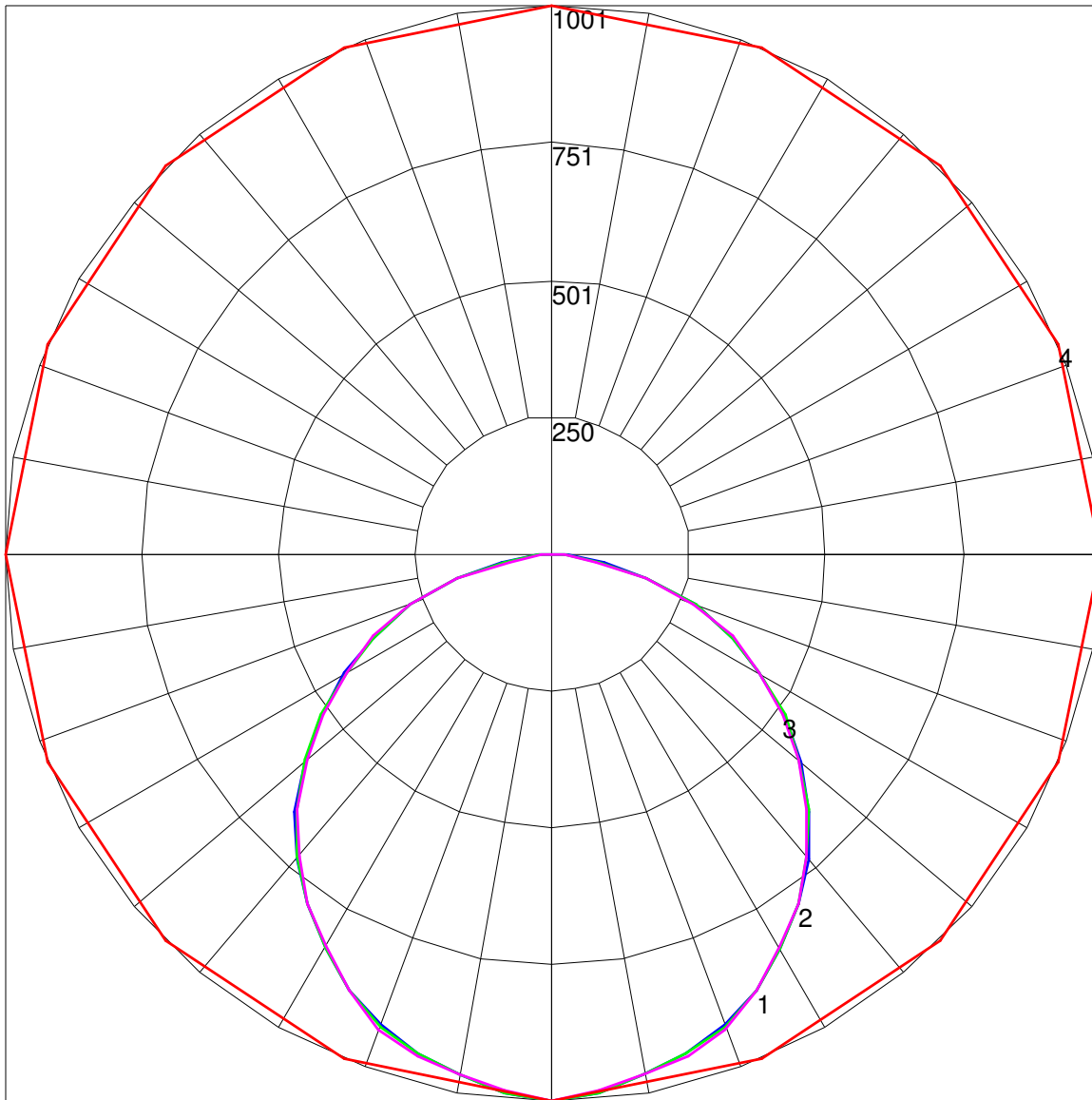
4H	2H	16.6	17.9	17.0	18.3	18.7	16.5	17.9	16.9	18.2
	3H	18.6	19.7	19.0	20.1	20.5	18.2	17.8	18.9	19.3
	4H	19.3	20.3	19.7	20.7	21.2	17.3	18.5	17.8	18.9
	6H	19.7	20.6	20.2	21.0	21.5	17.5	18.5	17.9	18.9
	8H	19.8	20.6	20.3	21.1	21.5	17.4	18.3	17.9	18.8
	12H	19.9	20.6	20.3	21.1	21.5	17.4	18.3	17.9	18.7

8H	4H	19.4	20.2	19.8	20.6	21.1	17.4	18.1	17.9	18.6
	6H	19.8	20.4	20.3	20.9	21.4	17.6	18.5	18.1	18.9
	8H	19.9	20.5	20.4	21.0	21.5	17.6	18.3	18.1	18.8
	12H	19.9	20.5	20.5	21.0	21.5	17.6	18.2	18.1	18.7

12H	4H	19.3	20.1	19.8	20.5	21.0	17.6	18.1	18.1	18.6
	6H	19.8	20.4	20.3	20.8	21.4	17.6	18.4	18.1	18.9
	8H	19.9	20.4	20.4	20.9	21.5	17.6	18.2	18.2	18.7

Maximum UGR = 21.5

POLAR GRAPH



Maximum Candela = 1001.424 Located At Horizontal Angle = 0, Vertical Angle = 0

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

2 - Vertical Plane Through Horizontal Angles (5 - 185)

3 - Vertical Plane Through Horizontal Angles (10 - 190)

4 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)