



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L32-927-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-L32-927-DIM-UNV
[LAMPCAT] HLM 90 CRI 2700K 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	2565
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	126
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	2783	2715	2708
55	2681	2622	2611
65	2554	2497	1335
75	2054	1141	218
85	923	404	303

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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	963.871	963.871	963.871	963.871	963.871
5	952.421	949.149	946.286	949.967	954.056
10	933.200	929.929	944.651	947.104	937.699
15	911.527	920.932	910.709	903.348	903.348
20	884.128	904.575	875.540	871.042	871.042
25	848.550	853.048	838.735	836.282	836.282
30	803.158	796.206	790.889	788.027	787.209
35	754.903	747.951	741.817	740.999	739.363
40	701.741	690.290	687.019	685.792	684.974
45	640.400	627.313	624.860	624.042	623.224
50	568.835	559.429	556.567	555.749	555.749
55	500.542	490.319	489.501	487.456	487.456
60	422.844	415.074	414.256	412.620	411.393
65	351.279	344.327	343.509	264.584	183.614
70	268.264	262.130	209.786	142.311	145.174
75	172.981	172.981	96.101	83.015	18.402
80	91.602	59.296	16.767	13.904	13.904
85	26.172	13.904	11.450	8.588	8.588
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	347.93	N.A.	13.60
0-30	735.77	N.A.	28.70
0-40	1201.3	N.A.	46.80
0-60	2121.8	N.A.	82.70
0-80	2548.36	N.A.	99.30
0-90	2565.05	N.A.	100.00
10-90	2474.6	N.A.	96.50
20-40	853.36	N.A.	33.30
20-50	1336.6	N.A.	52.10
40-70	1224.66	N.A.	47.70
60-80	426.56	N.A.	16.60
70-80	122.41	N.A.	4.80
80-90	16.69	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	2565.05	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	90.45
10-20	257.49
20-30	387.84
30-40	465.53
40-50	483.24
50-60	437.26
60-70	304.16
70-80	122.41
80-90	16.69
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	40	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	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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UGR TABLE - CORRECTED

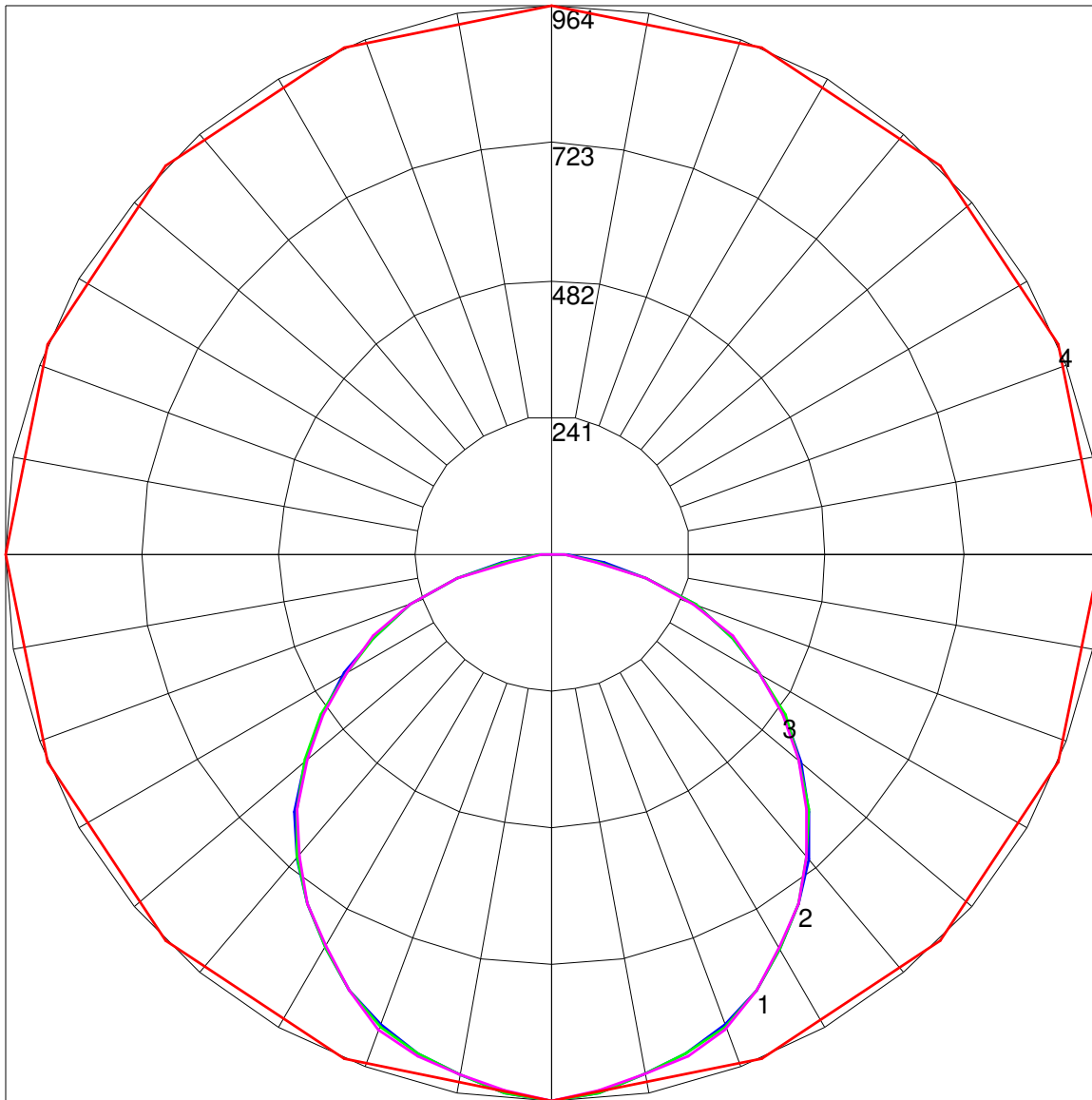
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	15.8	17.4	16.2	17.7	18.0	15.7	17.3	16.1	17.7	18.0
	3H	17.7	19.1	18.1	19.5	19.8	16.4	17.9	16.8	18.2	18.6
	4H	18.3	19.7	18.7	20.0	20.4	16.5	17.8	16.9	18.2	18.6
	6H	18.7	19.9	19.1	20.3	20.7	16.4	17.7	16.9	18.1	18.4
	8H	18.7	19.9	19.2	20.3	20.7	16.4	17.6	16.8	18.0	18.4
	12H	18.8	19.9	19.2	20.3	20.7	16.4	17.5	16.8	17.9	18.3
4H	2H	16.5	17.8	16.9	18.2	18.6	16.4	17.8	16.8	18.1	18.5
	3H	18.5	19.6	18.9	20.0	20.4	17.2	18.4	17.7	18.8	19.2
	4H	19.2	20.2	19.6	20.6	21.1	17.4	18.4	17.8	18.8	19.2
	6H	19.6	20.5	20.1	20.9	21.4	17.3	18.2	17.8	18.7	19.1
	8H	19.7	20.5	20.2	21.0	21.4	17.3	18.2	17.8	18.6	19.1
	12H	19.8	20.5	20.2	21.0	21.4	17.3	18.1	17.8	18.5	19.0
8H	4H	19.3	20.1	19.7	20.5	21.0	17.6	18.4	18.0	18.8	19.3
	6H	19.7	20.3	20.2	20.8	21.3	17.5	18.2	18.0	18.7	19.2
	8H	19.8	20.4	20.3	20.9	21.4	17.5	18.1	18.0	18.6	19.1
	12H	19.8	20.4	20.4	20.9	21.4	17.5	18.0	18.0	18.5	19.1
12H	4H	19.2	20.0	19.7	20.4	20.9	17.5	18.3	18.0	18.8	19.2
	6H	19.7	20.3	20.2	20.7	21.3	17.5	18.1	18.1	18.6	19.1
	8H	19.8	20.3	20.3	20.8	21.4	17.5	18.0	18.0	18.5	19.1

Maximum UGR = 21.4

POLAR GRAPH



Maximum Candela = 963.871 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.)