



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L53-940-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-L53-940-DIM-UNV
[LAMPCAT] HLM 90 CRI 4000K 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	4422
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	34.2
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	4797	4680	4668
55	4622	4520	4501
65	4402	4305	2301
75	3540	1967	377
85	1590	696	522

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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	1661.553	1661.553	1661.553	1661.553	1661.553
5	1641.815	1636.175	1631.241	1637.585	1644.635
10	1608.683	1603.043	1628.421	1632.651	1616.437
15	1571.321	1587.534	1569.911	1557.222	1557.222
20	1524.089	1559.337	1509.286	1501.531	1501.531
25	1462.759	1470.514	1445.841	1441.611	1441.611
30	1384.510	1372.526	1363.362	1358.427	1357.018
35	1301.327	1289.343	1278.769	1277.359	1274.539
40	1209.684	1189.946	1184.306	1182.191	1180.782
45	1103.943	1081.384	1077.155	1075.745	1074.335
50	980.577	964.364	959.429	958.019	958.019
55	862.852	845.228	843.818	840.293	840.293
60	728.912	715.518	714.108	711.289	709.174
65	605.547	593.563	592.153	456.099	316.520
70	462.443	451.869	361.636	245.321	250.255
75	298.191	298.191	165.662	143.104	31.722
80	157.907	102.217	28.903	23.968	23.968
85	45.116	23.968	19.738	14.804	14.804
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	599.78	N.A.	13.60
0-30	1268.35	N.A.	28.70
0-40	2070.83	N.A.	46.80
0-60	3657.62	N.A.	82.70
0-80	4392.95	N.A.	99.30
0-90	4421.73	N.A.	100.00
10-90	4265.81	N.A.	96.50
20-40	1471.05	N.A.	33.30
20-50	2304.08	N.A.	52.10
40-70	2111.1	N.A.	47.70
60-80	735.32	N.A.	16.60
70-80	211.01	N.A.	4.80
80-90	28.78	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	4421.73	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	155.92
10-20	443.86
20-30	668.56
30-40	802.49
40-50	833.03
50-60	753.76
60-70	524.31
70-80	211.01
80-90	28.78
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

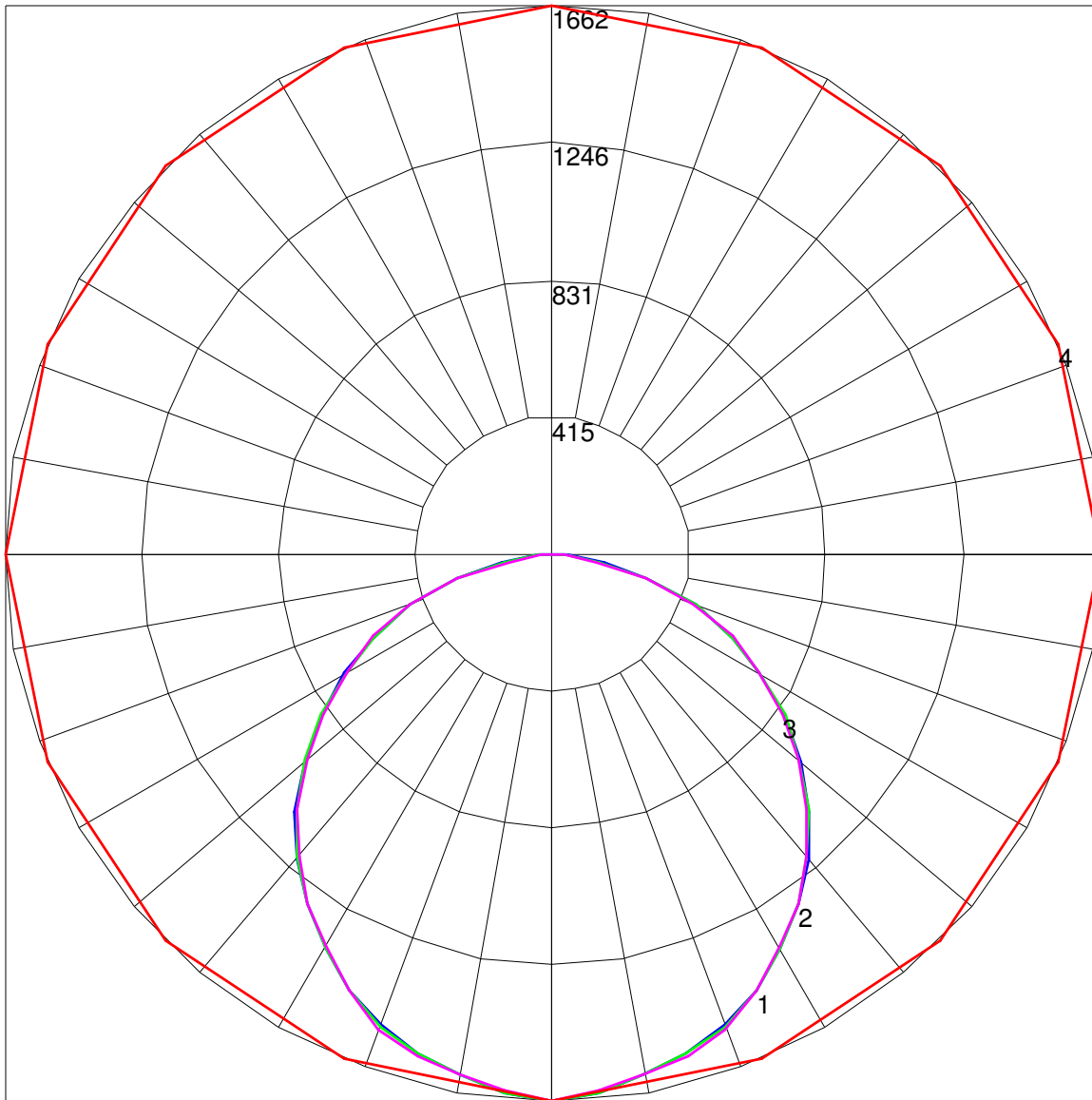
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	17.7	19.3	18.1	19.6	19.9	17.6	19.2	18.0	19.6	19.9
	3H	19.6	21.0	20.0	21.4	21.7	18.3	19.8	18.7	20.1	20.5
	4H	20.2	21.6	20.6	21.9	22.3	18.4	19.7	18.8	20.1	20.5
	6H	20.6	21.8	21.0	22.2	22.6	18.3	19.6	18.7	20.0	20.3
	8H	20.6	21.8	21.1	22.2	22.6	18.3	19.5	18.7	19.9	20.3
	12H	20.7	21.8	21.1	22.2	22.6	18.3	19.4	18.7	19.8	20.2
4H	2H	18.4	19.7	18.8	20.1	20.5	18.3	19.7	18.7	20.0	20.4
	3H	20.4	21.5	20.8	21.9	22.3	19.1	20.3	19.6	20.7	21.1
	4H	21.1	22.1	21.5	22.5	23.0	19.3	20.3	19.7	20.7	21.1
	6H	21.5	22.4	22.0	22.8	23.3	19.2	20.1	19.7	20.6	21.0
	8H	21.6	22.4	22.1	22.9	23.3	19.2	20.1	19.7	20.5	21.0
	12H	21.7	22.4	22.1	22.9	23.3	19.2	19.9	19.7	20.4	20.9
8H	4H	21.2	22.0	21.6	22.4	22.9	19.4	20.3	19.9	20.7	21.2
	6H	21.6	22.2	22.1	22.7	23.2	19.4	20.1	19.9	20.6	21.1
	8H	21.7	22.3	22.2	22.8	23.3	19.4	20.0	19.9	20.5	21.0
	12H	21.7	22.3	22.2	22.8	23.3	19.4	19.9	19.9	20.4	21.0
12H	4H	21.1	21.9	21.6	22.3	22.8	19.4	20.2	19.9	20.6	21.1
	6H	21.6	22.2	22.1	22.6	23.2	19.4	20.0	20.0	20.5	21.0
	8H	21.7	22.2	22.2	22.7	23.3	19.4	19.9	19.9	20.4	21.0

Maximum UGR = 23.3

POLAR GRAPH



Maximum Candela = 1661.553 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.)