



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 39-4-L84-940-A-(L65)-DIM-UNV.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 19011.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 05-SEPT-2024
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2-56LED 22"ARRAYS 4'PENDANT MOUNT LUMINAIRE
 [MORE] WHITE REFLECTOR w/FROSTED ACRYLIC RIBBED LENS
 [LUMCAT] 39-4-L84-940-A-(L65)-DIM-UNV
 [LAMPCAT] HLM 90 CRI 4000K CCT
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Architectural, Commercial, Direct, Linear
 [_SEARCH_MOUNTING] Pendant, Surface

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5490
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	44.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.01 ft
Luminous Width (90-270)	0.79 ft
Luminous Height	0.18 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5442	4924	4865
55	4541	4046	4067
65	3757	3312	3533
75	2739	2626	3049
85	1615	2188	2840

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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	2098.339	2098.339	2098.339	2098.339	2098.339
5	2109.990	2108.931	2107.872	2107.872	2108.931
10	2063.384	2062.325	2062.325	2063.384	2065.502
15	1990.297	1992.415	1995.593	1997.712	1999.830
20	1929.921	1930.980	1937.335	1938.395	1938.395
25	1767.858	1772.095	1777.391	1780.569	1780.569
30	1633.336	1638.632	1646.047	1650.283	1651.343
35	1519.998	1528.472	1540.123	1545.419	1548.597
40	1333.573	1344.165	1360.054	1369.587	1373.824
45	1185.281	1200.110	1221.294	1236.124	1241.420
50	990.382	1005.211	1033.810	1056.054	1064.528
55	816.668	834.675	869.629	896.110	907.762
60	651.428	670.494	707.567	746.759	762.647
65	512.668	532.794	580.459	634.480	651.428
70	372.850	397.212	459.707	517.964	541.268
75	243.623	273.282	342.132	404.627	426.870
80	142.996	181.129	256.334	319.888	342.132
85	62.495	103.805	177.951	238.327	259.512
90	0.000	45.547	105.923	154.648	173.714
95	0.000	19.066	67.791	111.219	128.167
100	0.000	0.000	41.310	75.205	86.857
105	0.000	0.000	26.481	49.784	60.376
110	0.000	0.000	0.000	33.895	41.310
115	0.000	0.000	0.000	25.422	30.718
120	0.000	0.000	0.000	21.185	23.303
125	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
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

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	764.18	N.A.	13.90
0-30	1586.28	N.A.	28.90
0-40	2537.6	N.A.	46.20
0-60	4244.67	N.A.	77.30
0-80	5187.64	N.A.	94.50
0-90	5375.35	N.A.	97.90
10-90	5175.83	N.A.	94.30
20-40	1773.42	N.A.	32.30
20-50	2704.44	N.A.	49.30
40-70	2284.22	N.A.	41.60
60-80	942.96	N.A.	17.20
70-80	365.82	N.A.	6.70
80-90	187.71	N.A.	3.40
90-110	101.86	N.A.	1.90
90-120	112.37	N.A.	2.00
90-130	114.27	N.A.	2.10
90-150	114.27	N.A.	2.10
90-180	114.27	N.A.	2.10
110-180	12.41	N.A.	0.20
0-180	5489.62	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	199.53
10-20	564.66
20-30	822.10
30-40	951.32
40-50	931.02
50-60	776.05
60-70	577.14
70-80	365.82
80-90	187.71
90-100	73.52
100-110	28.34
110-120	10.51
120-130	1.90
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	110	110	110	105	105	105	100	100	100	98
1	108	103	99	95	105	101	97	93	96	93	90	92	89	86	88	86	83	81
2	98	90	83	77	95	88	82	76	84	79	74	80	76	72	77	74	70	68
3	90	79	71	65	87	78	70	64	74	68	63	71	66	61	69	64	60	58
4	82	71	62	55	80	69	61	55	66	59	54	64	58	53	61	56	52	50
5	76	63	54	48	74	62	54	48	60	52	47	58	51	46	55	50	45	43
6	70	57	48	42	68	56	48	42	54	47	41	52	46	41	50	45	40	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	46	40	36	34
8	61	48	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	44	36	30	55	43	35	30	42	35	30	41	34	30	39	34	29	27
10	53	40	33	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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UGR TABLE - CORRECTED

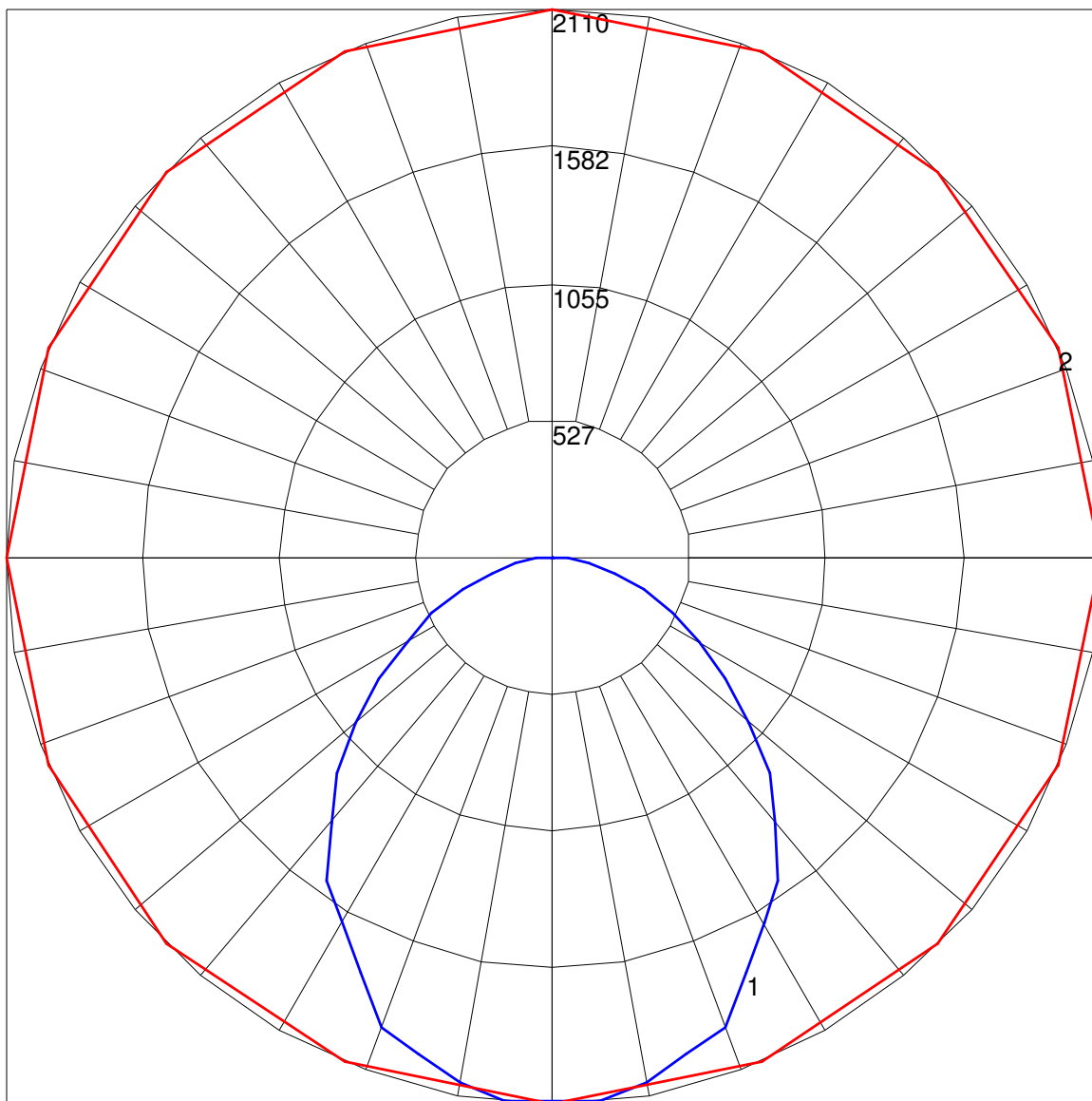
Reflectances

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	17.3	16.2	17.7	18.1	16.9	18.5	17.3	18.9	19.2
	3H	17.1	18.6	17.5	18.9	19.3	19.0	20.4	19.4	20.8	21.2
	4H	17.5	18.9	18.0	19.3	19.7	19.9	21.2	20.3	21.6	22.0
	6H	17.8	19.1	18.2	19.5	19.9	20.8	22.0	21.2	22.4	22.9
	8H	17.9	19.1	18.3	19.5	19.9	21.2	22.4	21.7	22.8	23.3
	12H	17.9	19.0	18.4	19.5	19.9	21.6	22.8	22.1	23.2	23.7
4H	2H	16.4	17.8	16.9	18.2	18.6	17.4	18.7	17.8	19.1	19.5
	3H	18.0	19.1	18.5	19.6	20.0	19.6	20.8	20.1	21.2	21.6
	4H	18.5	19.6	19.0	20.0	20.5	20.7	21.7	21.2	22.2	22.6
	6H	18.9	19.8	19.4	20.3	20.8	21.8	22.7	22.2	23.1	23.6
	8H	19.0	19.9	19.5	20.3	20.8	22.3	23.1	22.8	23.6	24.1
	12H	19.1	19.8	19.6	20.3	20.9	22.8	23.6	23.4	24.1	24.6
8H	4H	19.0	19.8	19.5	20.3	20.8	20.9	21.7	21.4	22.2	22.7
	6H	19.5	20.2	20.0	20.7	21.2	22.1	22.8	22.6	23.3	23.9
	8H	19.6	20.3	20.2	20.8	21.4	22.7	23.4	23.3	23.9	24.5
	12H	19.8	20.3	20.3	20.9	21.5	23.5	24.0	24.0	24.6	25.2
12H	4H	19.1	19.8	19.6	20.4	20.9	20.9	21.6	21.4	22.2	22.7
	6H	19.6	20.3	20.2	20.8	21.4	22.1	22.8	22.7	23.3	23.9
	8H	19.9	20.5	20.4	21.0	21.6	22.8	23.4	23.4	23.9	24.5

Maximum UGR = 25.2

POLAR GRAPH



Maximum Candela = 2109.99 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.)