



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L115-835-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-L115-835-DIM-UNV
[LAMPCAT] HLM 80 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	11167
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	153
Total Luminaire Watts	73.1
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	12115	11821	11790
55	11674	11416	11368
65	11119	10873	5812
75	8940	4967	951
85	4017	1757	1318

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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	4196.391	4196.391	4196.391	4196.391	4196.391
5	4146.540	4132.297	4119.834	4135.858	4153.662
10	4062.861	4048.618	4112.713	4123.395	4082.446
15	3968.501	4009.450	3964.940	3932.893	3932.893
20	3849.214	3938.234	3811.826	3792.241	3792.241
25	3694.320	3713.904	3651.590	3640.908	3640.908
30	3496.696	3466.429	3443.284	3430.821	3427.260
35	3286.609	3256.343	3229.637	3226.076	3218.954
40	3055.158	3005.307	2991.064	2985.722	2982.162
45	2788.099	2731.126	2720.444	2716.883	2713.322
50	2476.529	2435.580	2423.118	2419.557	2419.557
55	2179.204	2134.694	2131.133	2122.231	2122.231
60	1840.928	1807.101	1803.540	1796.419	1791.077
65	1529.359	1499.093	1495.532	1151.916	799.397
70	1167.939	1141.233	913.343	619.577	632.040
75	753.107	753.107	418.393	361.420	80.118
80	398.808	258.157	72.996	60.533	60.533
85	113.945	60.533	49.851	37.388	37.388
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1514.8	N.A.	13.60
0-30	3203.31	N.A.	28.70
0-40	5230.06	N.A.	46.80
0-60	9237.63	N.A.	82.70
0-80	11094.75	N.A.	99.30
0-90	11167.43	N.A.	100.00
10-90	10773.65	N.A.	96.50
20-40	3715.26	N.A.	33.30
20-50	5819.15	N.A.	52.10
40-70	5331.76	N.A.	47.70
60-80	1857.12	N.A.	16.60
70-80	532.92	N.A.	4.80
80-90	72.68	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	11167.43	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	393.79
10-20	1121.01
20-30	1688.52
30-40	2026.75
40-50	2103.88
50-60	1903.69
60-70	1324.2
70-80	532.92
80-90	72.68
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

X=2H	Y=2H	20.9	22.5	21.3	22.8	23.1	UGR Viewed Endwise			
	3H	22.8	24.2	23.2	24.6	24.9	20.8	22.4	21.2	22.8
	4H	23.4	24.8	23.8	25.1	25.5	21.5	23.0	21.9	23.3
	6H	23.8	25.0	24.2	25.4	25.8	21.6	22.9	22.0	23.3
	8H	23.8	25.0	24.3	25.4	25.8	21.5	22.8	21.9	23.2
	12H	23.9	25.0	24.3	25.4	25.8	21.5	22.7	21.9	23.1

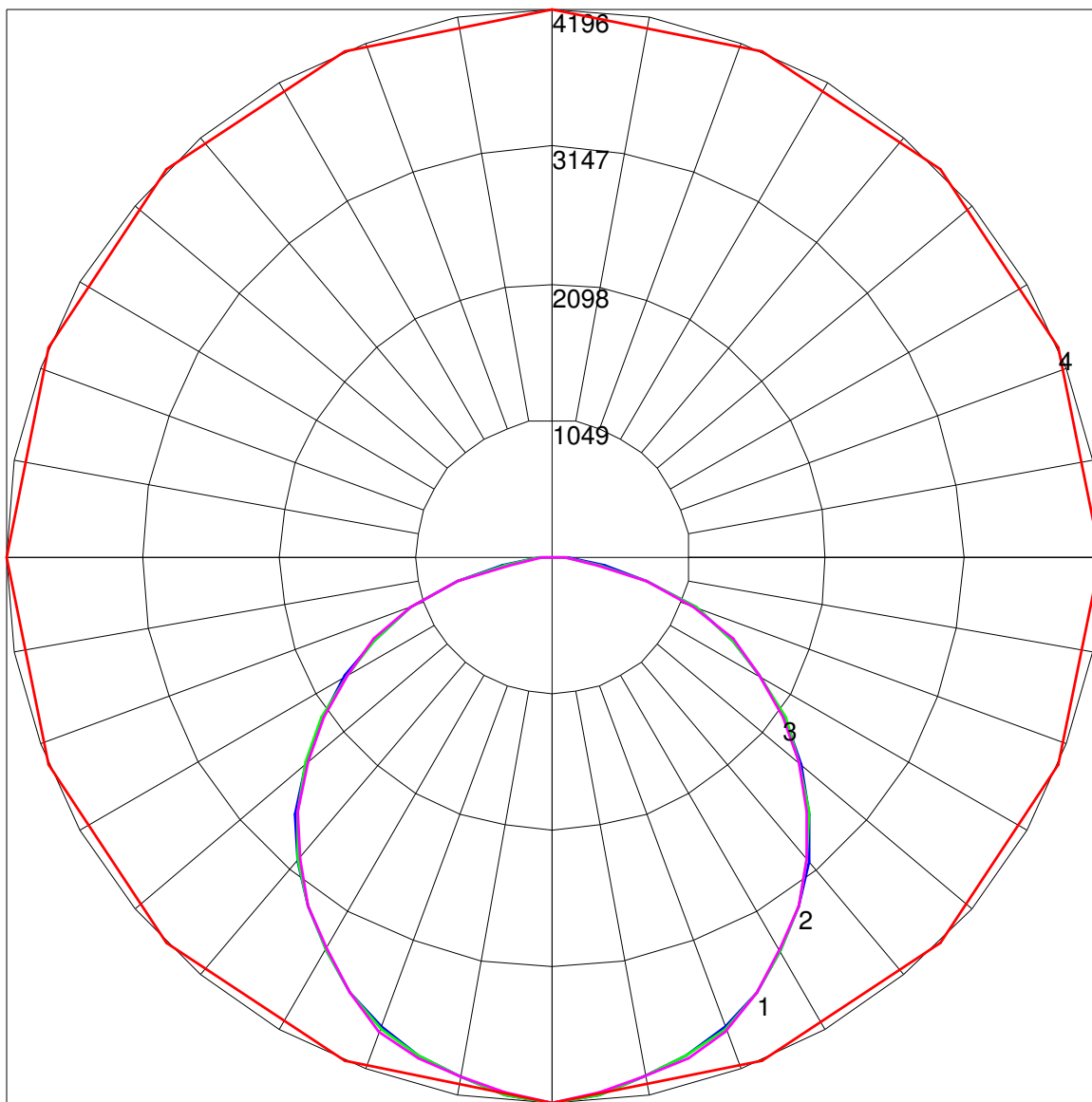
4H	2H	21.6	22.9	22.0	23.3	23.7	21.5	22.9	21.9	23.2
	3H	23.6	24.7	24.0	25.1	25.5	22.3	23.5	22.8	23.9
	4H	24.3	25.3	24.7	25.7	26.2	22.5	23.5	22.9	23.9
	6H	24.7	25.6	25.2	26.0	26.5	22.4	23.3	22.9	23.8
	8H	24.8	25.6	25.3	26.1	26.5	22.4	23.3	22.9	23.7
	12H	24.9	25.6	25.3	26.1	26.5	22.4	23.1	22.9	23.6

8H	4H	24.4	25.2	24.8	25.6	26.1	22.6	23.5	23.1	23.9
	6H	24.8	25.4	25.3	25.9	26.4	22.6	23.3	23.1	23.8
	8H	24.9	25.5	25.4	26.0	26.5	22.6	23.2	23.1	23.7
	12H	24.9	25.5	25.4	26.0	26.5	22.6	23.1	23.1	23.6

12H	4H	24.3	25.1	24.8	25.5	26.0	22.6	23.4	23.1	23.8
	6H	24.8	25.4	25.3	25.8	26.4	22.6	23.2	23.2	23.7
	8H	24.9	25.4	25.4	25.9	26.5	22.6	23.1	23.1	23.6

Maximum UGR = 26.5

POLAR GRAPH



Maximum Candela = 4196.391 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.)