



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L32-850-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-L32-850-DIM-UNV
[LAMPCAT] HLM 80 CRI 5000K 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	3431
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	169
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	3722	3632	3622
55	3587	3508	3493
65	3416	3341	1786
75	2747	1526	292
85	1234	540	405

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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	1289.334	1289.334	1289.334	1289.334	1289.334
5	1274.017	1269.641	1265.812	1270.735	1276.205
10	1248.307	1243.931	1263.624	1266.906	1254.324
15	1219.315	1231.896	1218.221	1208.374	1208.374
20	1182.664	1210.016	1171.177	1165.160	1165.160
25	1135.073	1141.091	1121.945	1118.663	1118.663
30	1074.354	1065.054	1057.943	1054.114	1053.020
35	1009.805	1000.506	992.300	991.206	989.018
40	938.692	923.375	918.999	917.358	916.264
45	856.638	839.134	835.852	834.758	833.664
50	760.909	748.328	744.499	743.405	743.405
55	669.557	655.881	654.787	652.052	652.052
60	565.622	555.229	554.135	551.947	550.305
65	469.893	460.594	459.500	353.924	245.613
70	358.847	350.642	280.623	190.364	194.193
75	231.391	231.391	128.550	111.046	24.616
80	122.533	79.318	22.428	18.599	18.599
85	35.009	18.599	15.317	11.487	11.487
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	465.42	N.A.	13.60
0-30	984.21	N.A.	28.70
0-40	1606.93	N.A.	46.80
0-60	2838.25	N.A.	82.70
0-80	3408.84	N.A.	99.30
0-90	3431.18	N.A.	100.00
10-90	3310.18	N.A.	96.50
20-40	1141.51	N.A.	33.30
20-50	1787.92	N.A.	52.10
40-70	1638.18	N.A.	47.70
60-80	570.60	N.A.	16.60
70-80	163.74	N.A.	4.80
80-90	22.33	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	3431.18	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	120.99
10-20	344.43
20-30	518.79
30-40	622.72
40-50	646.41
50-60	584.90
60-70	406.86
70-80	163.74
80-90	22.33
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	42	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	16.8	18.4	17.2	18.7	19.0	UGR Viewed Endwise			
	3H	18.7	20.1	19.1	20.5	20.8	16.7	18.3	17.1	18.7
	4H	19.3	20.7	19.7	21.0	21.4	17.4	18.9	17.8	19.2
	6H	19.7	20.9	20.1	21.3	21.7	17.5	18.8	17.9	19.2
	8H	19.7	20.9	20.2	21.3	21.7	17.4	18.7	17.9	19.1
	12H	19.8	20.9	20.2	21.3	21.7	17.4	18.6	17.8	19.0

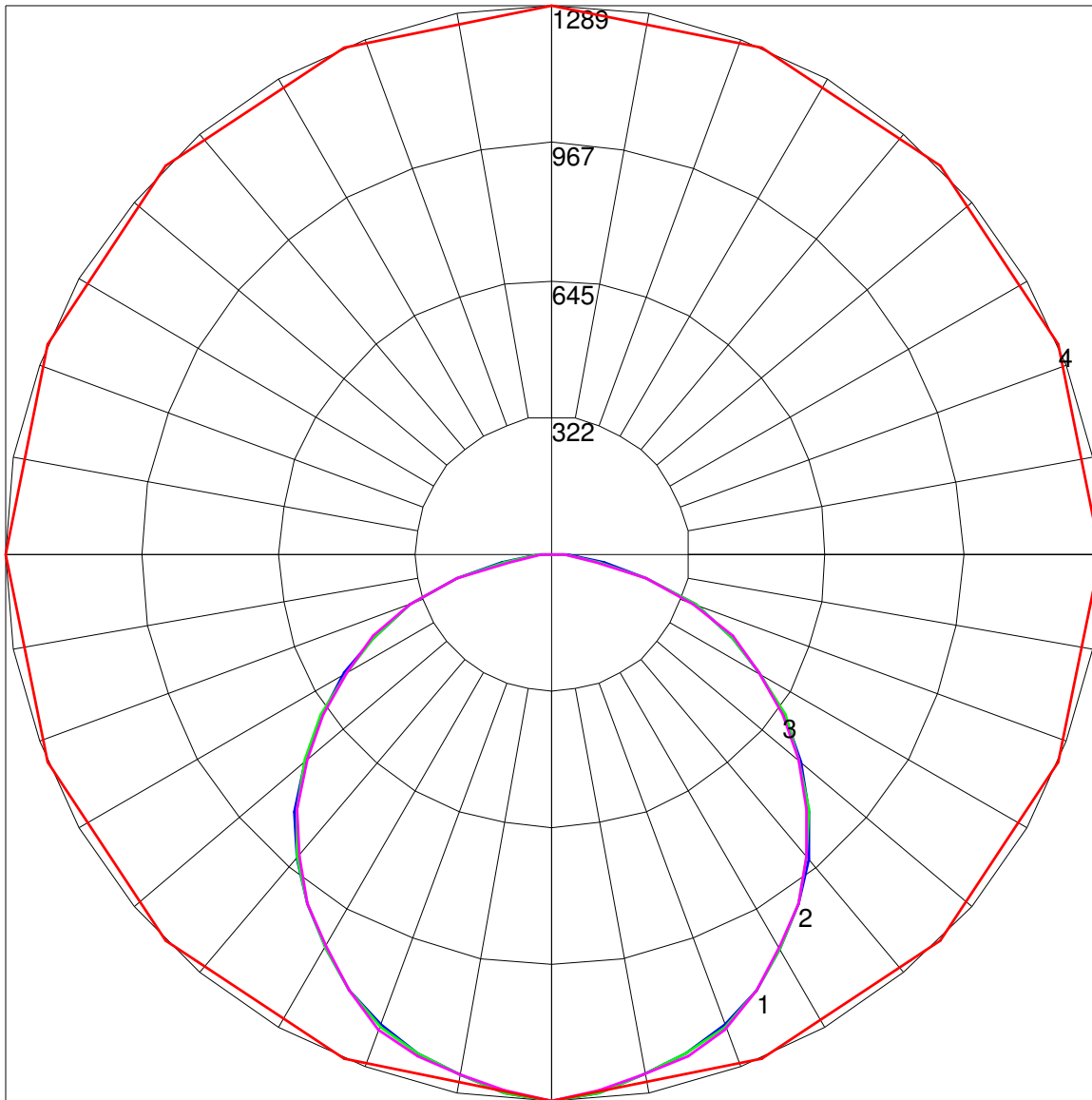
4H	2H	17.5	18.8	17.9	19.2	19.6	17.4	18.8	17.8	19.1	19.5
	3H	19.5	20.6	19.9	21.0	21.4	18.2	19.4	18.7	19.8	20.2
	4H	20.2	21.2	20.6	21.6	22.1	18.4	19.4	18.8	19.8	20.2
	6H	20.6	21.5	21.1	21.9	22.4	18.3	19.2	18.8	19.7	20.1
	8H	20.7	21.5	21.2	22.0	22.4	18.3	19.2	18.8	19.6	20.1
	12H	20.8	21.5	21.2	22.0	22.4	18.3	19.0	18.8	19.5	20.0

8H	4H	20.3	21.1	20.7	21.5	22.0	18.6	19.4	19.0	19.8	20.3
	6H	20.7	21.3	21.2	21.8	22.3	18.5	19.2	19.0	19.7	20.2
	8H	20.8	21.4	21.3	21.9	22.4	18.5	19.1	19.0	19.6	20.1
	12H	20.8	21.4	21.4	21.9	22.4	18.5	19.0	19.0	19.5	20.1

12H	4H	20.2	21.0	20.7	21.4	21.9	18.5	19.3	19.0	19.8	20.2
	6H	20.7	21.3	21.2	21.7	22.3	18.5	19.1	19.1	19.6	20.1
	8H	20.8	21.3	21.3	21.8	22.4	18.5	19.0	19.0	19.5	20.1

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 1289.334 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.)