



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 80-4-L115-840-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-L115-840-DIM-UNV
[LAMPCAT] HLM 80 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	11513
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	157
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	12490	12186	12155
55	12035	11769	11720
65	11463	11209	5992
75	9217	5120	981
85	4141	1812	1359

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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	4326.177	4326.177	4326.177	4326.177	4326.177
5	4274.784	4260.100	4247.252	4263.771	4282.126
10	4188.517	4173.834	4239.910	4250.923	4208.707
15	4091.238	4133.454	4087.567	4054.529	4054.529
20	3968.262	4060.035	3929.718	3909.528	3909.528
25	3808.577	3828.767	3764.526	3753.514	3753.514
30	3604.841	3573.639	3549.778	3536.929	3533.259
35	3388.257	3357.054	3329.523	3325.852	3318.510
40	3149.648	3098.255	3083.571	3078.065	3074.394
45	2874.329	2815.594	2804.581	2800.910	2797.240
50	2553.123	2510.908	2498.060	2494.389	2494.389
55	2246.602	2200.715	2197.044	2187.867	2187.867
60	1897.865	1862.991	1859.320	1851.978	1846.472
65	1576.659	1545.456	1541.786	1187.542	824.121
70	1204.061	1176.529	941.590	638.740	651.588
75	776.399	776.399	431.333	372.598	82.596
80	411.143	266.142	75.254	62.406	62.406
85	117.469	62.406	51.393	38.545	38.545
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1561.65	N.A.	13.60
0-30	3302.38	N.A.	28.70
0-40	5391.82	N.A.	46.80
0-60	9523.33	N.A.	82.70
0-80	11437.89	N.A.	99.30
0-90	11512.82	N.A.	100.00
10-90	11106.85	N.A.	96.50
20-40	3830.17	N.A.	33.30
20-50	5999.12	N.A.	52.10
40-70	5496.66	N.A.	47.70
60-80	1914.56	N.A.	16.60
70-80	549.41	N.A.	4.80
80-90	74.93	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	11512.82	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	405.97
10-20	1155.68
20-30	1740.74
30-40	2089.43
40-50	2168.95
50-60	1962.56
60-70	1365.15
70-80	549.41
80-90	74.93
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

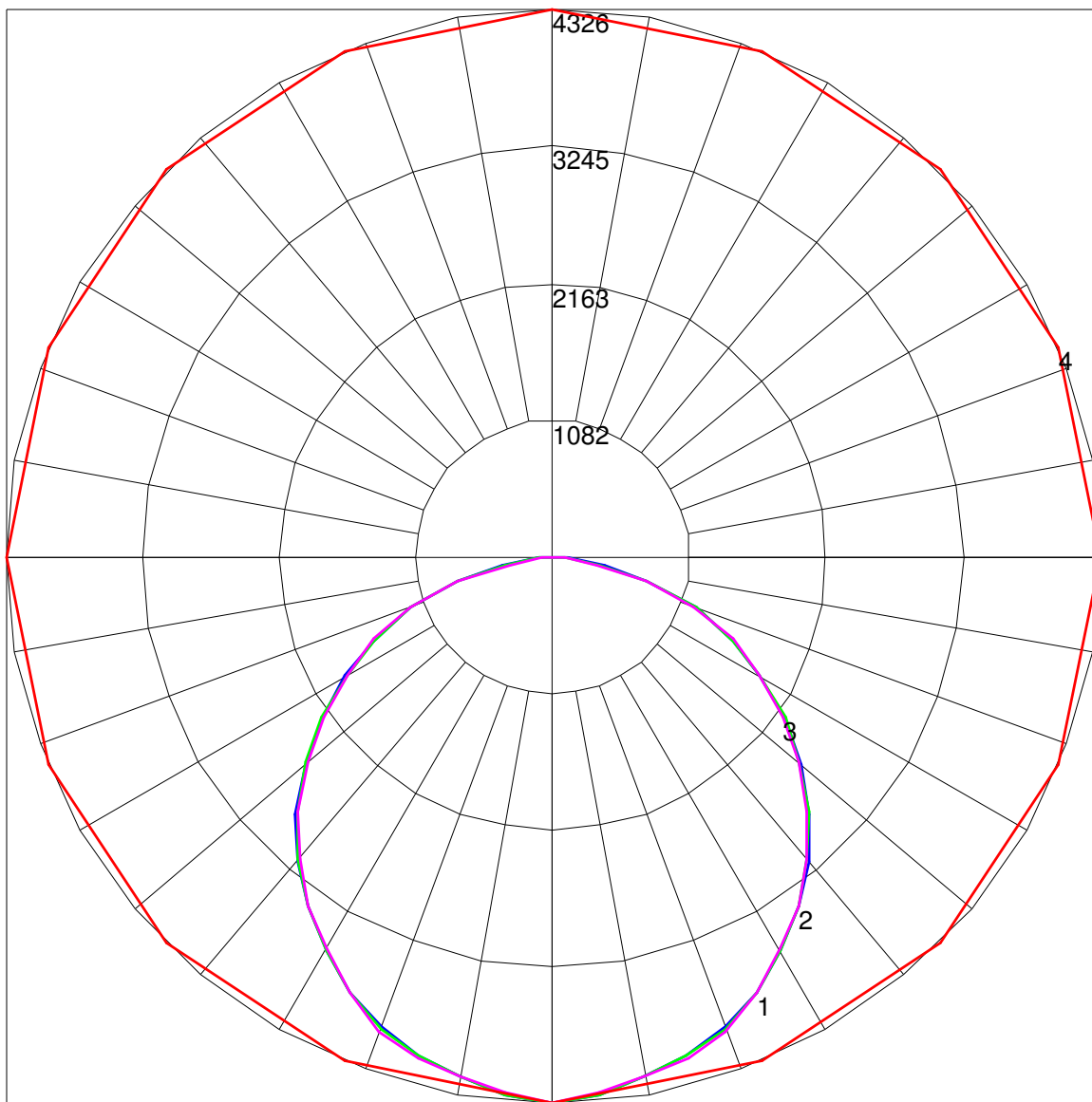
X=2H	Y=2H	21.0	22.6	21.4	22.9	23.2	20.9	22.5	21.3	22.9	23.2
	3H	22.9	24.3	23.3	24.7	25.0	21.6	23.1	22.0	23.4	23.8
	4H	23.5	24.9	23.9	25.2	25.6	21.7	23.0	22.1	23.4	23.8
	6H	23.9	25.1	24.3	25.5	25.9	21.6	22.9	22.0	23.3	23.6
	8H	23.9	25.1	24.4	25.5	25.9	21.6	22.8	22.0	23.2	23.6
	12H	24.0	25.1	24.4	25.5	25.9	21.6	22.7	22.0	23.1	23.5

UGR Viewed Endwise

4H	2H	21.7	23.0	22.1	23.4	23.8	21.6	23.0	22.0	23.3	23.7
	3H	23.7	24.8	24.1	25.2	25.6	22.4	23.6	22.9	24.0	24.4
	4H	24.4	25.4	24.8	25.8	26.3	22.6	23.6	23.0	24.0	24.4
	6H	24.8	25.7	25.3	26.1	26.6	22.5	23.4	23.0	23.9	24.3
	8H	24.9	25.7	25.4	26.2	26.6	22.5	23.4	23.0	23.8	24.3
	12H	25.0	25.7	25.4	26.2	26.6	22.5	23.2	23.0	23.7	24.2
8H	4H	24.5	25.3	24.9	25.7	26.2	22.7	23.6	23.2	24.0	24.5
	6H	24.9	25.5	25.4	26.0	26.5	22.7	23.4	23.2	23.9	24.4
	8H	25.0	25.6	25.5	26.1	26.6	22.7	23.3	23.2	23.8	24.3
	12H	25.0	25.6	25.5	26.1	26.6	22.7	23.2	23.2	23.7	24.3
12H	4H	24.4	25.2	24.9	25.6	26.1	22.7	23.5	23.2	23.9	24.4
	6H	24.9	25.5	25.4	25.9	26.5	22.7	23.3	23.3	23.8	24.3
	8H	25.0	25.5	25.5	26.0	26.6	22.7	23.2	23.2	23.7	24.3

Maximum UGR = 26.6

POLAR GRAPH



Maximum Candela = 4326.177 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.)