



IES INDOOR REPORT  
PHOTOMETRIC FILENAME : 80-4-L77-935-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-L77-935-DIM-UNV  
[LAMPCAT] HLM 90 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	6224
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	51.4
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	6753	6589	6571
55	6507	6363	6336
65	6197	6060	3239
75	4983	2768	530
85	2239	980	735

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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>
<b>0</b>	2338.962	2338.962	2338.962	2338.962	2338.962
<b>5</b>	2311.176	2303.237	2296.291	2305.222	2315.145
<b>10</b>	2264.536	2256.597	2292.321	2298.275	2275.451
<b>15</b>	2211.941	2234.765	2209.957	2192.094	2192.094
<b>20</b>	2145.454	2195.071	2124.615	2113.699	2113.699
<b>25</b>	2059.120	2070.036	2035.303	2029.349	2029.349
<b>30</b>	1948.969	1932.099	1919.199	1912.252	1910.268
<b>35</b>	1831.872	1815.002	1800.117	1798.133	1794.163
<b>40</b>	1702.867	1675.082	1667.143	1664.166	1662.181
<b>45</b>	1554.015	1522.260	1516.306	1514.321	1512.337
<b>50</b>	1380.355	1357.531	1350.584	1348.599	1348.599
<b>55</b>	1214.633	1189.824	1187.839	1182.877	1182.877
<b>60</b>	1026.087	1007.232	1005.247	1001.278	998.301
<b>65</b>	852.426	835.556	833.571	642.048	445.564
<b>70</b>	650.980	636.094	509.074	345.337	352.283
<b>75</b>	419.763	419.763	233.202	201.446	44.656
<b>80</b>	222.286	143.890	40.686	33.740	33.740
<b>85</b>	63.510	33.740	27.786	20.839	20.839
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	844.31	N.A.	13.60
0-30	1785.45	N.A.	28.70
0-40	2915.1	N.A.	46.80
0-60	5148.82	N.A.	82.70
0-80	6183.93	N.A.	99.30
0-90	6224.44	N.A.	100.00
10-90	6004.96	N.A.	96.50
20-40	2070.79	N.A.	33.30
20-50	3243.44	N.A.	52.10
40-70	2971.79	N.A.	47.70
60-80	1035.11	N.A.	16.60
70-80	297.04	N.A.	4.80
80-90	40.51	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	6224.44	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	219.49
10-20	624.82
20-30	941.14
30-40	1129.66
40-50	1172.65
50-60	1061.07
60-70	738.07
70-80	297.04
80-90	40.51
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	18.9	20.5	19.3	20.8	21.1	UGR Viewed Endwise			
	3H	20.8	22.2	21.2	22.6	22.9	18.8	20.4	19.2	20.8
	4H	21.4	22.8	21.8	23.1	23.5	19.5	21.0	19.9	21.3
	6H	21.8	23.0	22.2	23.4	23.8	19.6	20.9	20.0	21.3
	8H	21.8	23.0	22.3	23.4	23.8	19.5	20.8	19.9	21.2
	12H	21.9	23.0	22.3	23.4	23.8	19.5	20.7	19.9	21.1

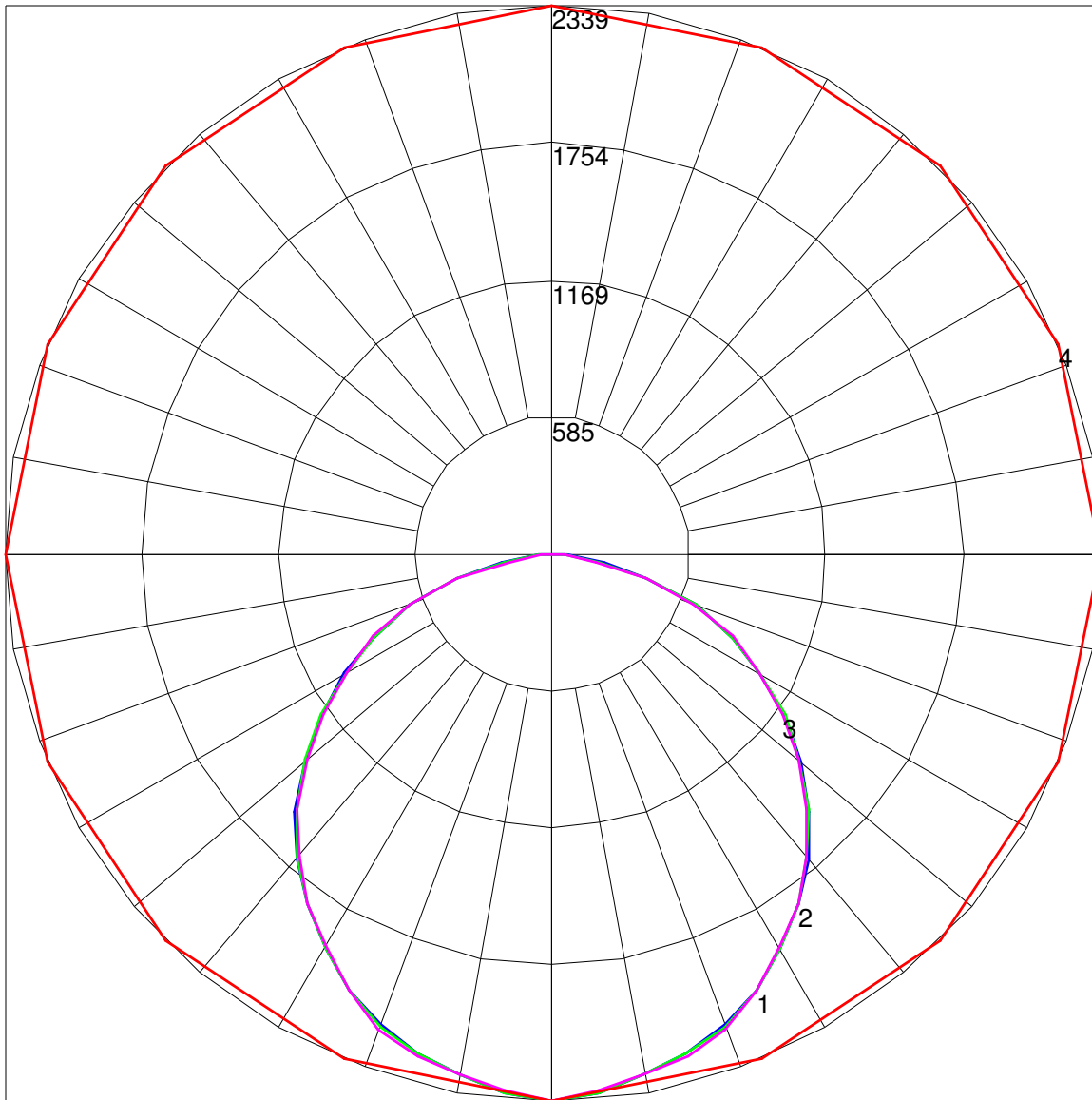
4H	2H	19.6	20.9	20.0	21.3	21.7	19.5	20.9	19.9	21.2	21.6
	3H	21.6	22.7	22.0	23.1	23.5	20.3	21.5	20.8	21.9	22.3
	4H	22.3	23.3	22.7	23.7	24.2	20.5	21.5	20.9	21.9	22.3
	6H	22.7	23.6	23.2	24.0	24.5	20.4	21.3	20.9	21.8	22.2
	8H	22.8	23.6	23.3	24.1	24.5	20.4	21.3	20.9	21.7	22.2
	12H	22.9	23.6	23.3	24.1	24.5	20.4	21.1	20.9	21.6	22.1

8H	4H	22.4	23.2	22.8	23.6	24.1	20.6	21.5	21.1	21.9	22.4
	6H	22.8	23.4	23.3	23.9	24.4	20.6	21.3	21.1	21.8	22.3
	8H	22.9	23.5	23.4	24.0	24.5	20.6	21.2	21.1	21.7	22.2
	12H	22.9	23.5	23.4	24.0	24.5	20.6	21.1	21.1	21.6	22.2

12H	4H	22.3	23.1	22.8	23.5	24.0	20.6	21.4	21.1	21.8	22.3
	6H	22.8	23.4	23.3	23.8	24.4	20.6	21.2	21.2	21.7	22.2
	8H	22.9	23.4	23.4	23.9	24.5	20.6	21.1	21.1	21.6	22.2

Maximum UGR = 24.5

POLAR GRAPH



Maximum Candela = 2338.962 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.)