



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-8-L230-840-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] 2024-01-09
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 8' SUSPENDED INDUSTRIAL LED LUMINAIRE
[MORE] WHITE REFLECTOR w/OPEN BOTTOM
[MORE] 0-10V DIMMING DRIVER
[LUMCAT] 80-8-L230-840-DIM-UNV
[LAMPCAT] HLM 22 INCH LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] INDOOR
[_SEARCH_MOUNTING] SUSPENDED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	23026
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	158
Total Luminaire Watts	146.1
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)	8.00 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	8652.354	8652.354	8652.354	8652.354	8652.354
5	8549.568	8520.201	8494.504	8527.542	8564.252
10	8377.035	8347.668	8479.821	8501.846	8417.415
15	8182.476	8266.907	8175.134	8109.058	8109.058
20	7936.525	8120.071	7859.435	7819.055	7819.055
25	7617.155	7657.535	7529.053	7507.027	7507.027
30	7209.683	7147.277	7099.555	7073.859	7066.517
35	6776.515	6714.109	6659.045	6651.703	6637.020
40	6299.295	6196.510	6167.142	6156.129	6148.788
45	5748.658	5631.188	5609.163	5601.821	5594.479
50	5106.247	5021.816	4996.119	4988.778	4988.778
55	4493.204	4401.431	4394.089	4375.734	4375.734
60	3795.729	3725.982	3718.640	3703.956	3692.943
65	3153.319	3090.913	3083.571	2375.084	1648.242
70	2408.122	2353.058	1883.181	1277.479	1303.176
75	1552.798	1552.798	862.666	745.196	165.191
80	822.286	532.283	150.508	124.811	124.811
85	234.939	124.811	102.786	77.089	77.089
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3123.29	N.A.	13.60
0-30	6604.77	N.A.	28.70
0-40	10783.64	N.A.	46.80
0-60	19046.66	N.A.	82.70
0-80	22875.78	N.A.	99.30
0-90	23025.64	N.A.	100.00
10-90	22213.71	N.A.	96.50
20-40	7660.34	N.A.	33.30
20-50	11998.24	N.A.	52.10
40-70	10993.33	N.A.	47.70
60-80	3829.12	N.A.	16.60
70-80	1098.81	N.A.	4.80
80-90	149.86	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	23025.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	811.93
10-20	2311.36
20-30	3481.48
30-40	4178.87
40-50	4337.9
50-60	3925.12
60-70	2730.3
70-80	1098.81
80-90	149.86
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	22.8	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	23.7
	6H	23.9	25.1	24.3	25.5	25.9	21.6	22.9	22.0	23.2	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

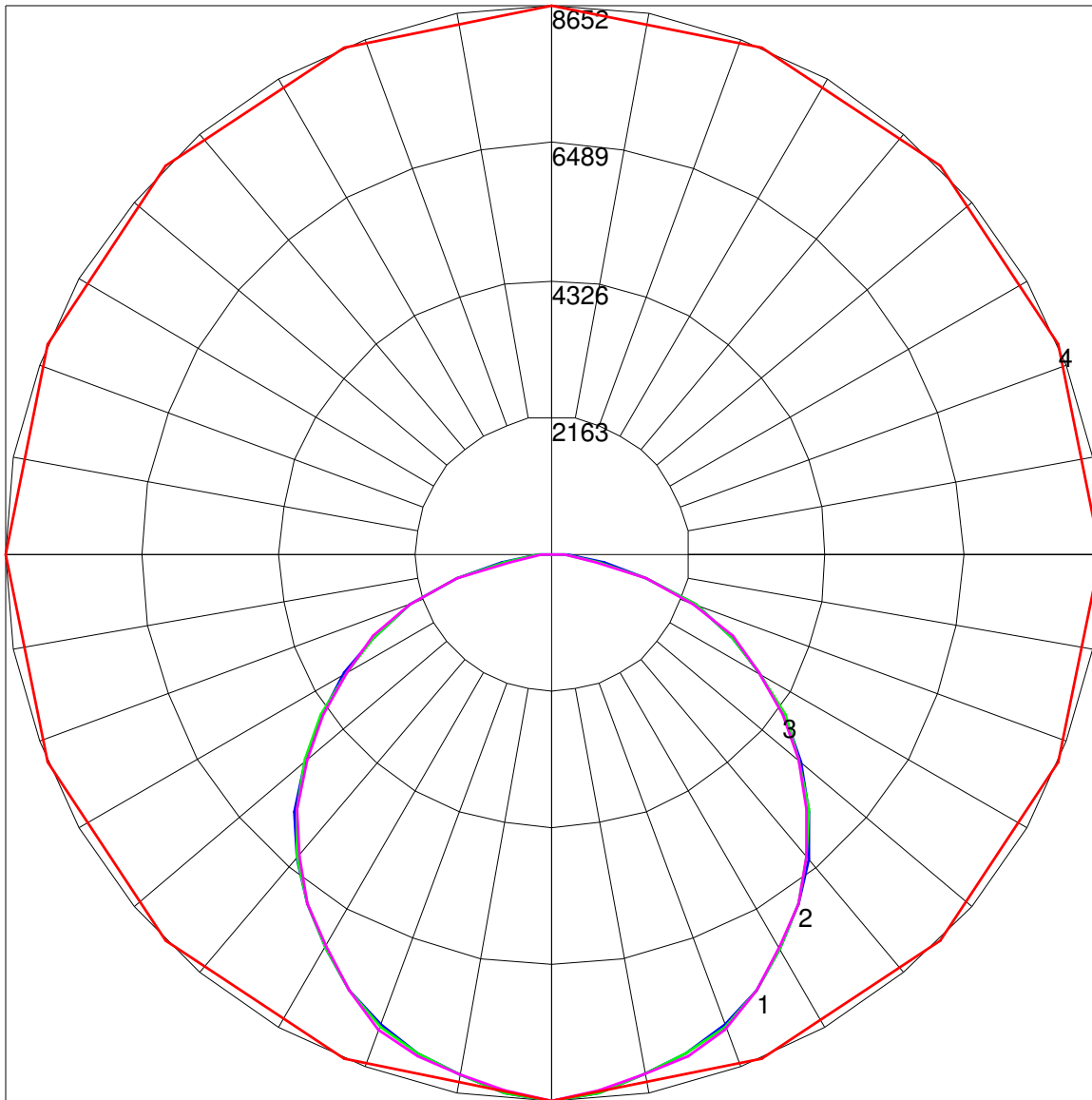
4H	2H	21.7	23.0	22.1	23.4	23.7	21.6	23.0	22.0	23.3	23.7
	3H	23.7	24.8	24.1	25.2	25.6	22.4	23.6	22.8	24.0	24.4
	4H	24.4	25.4	24.8	25.8	26.3	22.6	23.6	23.0	24.0	24.4
	6H	24.8	25.7	25.2	26.1	26.6	22.5	23.4	23.0	23.9	24.3
	8H	24.9	25.7	25.4	26.2	26.6	22.5	23.3	23.0	23.8	24.3
	12H	24.9	25.7	25.4	26.1	26.6	22.5	23.2	23.0	23.7	24.2

8H	4H	24.4	25.3	24.9	25.7	26.2	22.7	23.6	23.2	24.0	24.5
	6H	24.9	25.5	25.3	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	25.1	24.9	25.6	26.1	22.7	23.5	23.2	23.9	24.4
	6H	24.8	25.4	25.4	25.9	26.4	22.7	23.3	23.2	23.8	24.3
	8H	25.0	25.5	25.5	26.0	26.5	22.7	23.2	23.2	23.7	24.3

Maximum UGR = 26.6

POLAR GRAPH



Maximum Candela = 8652.354 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.)