



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LLM-8-L10-835-X-SQ-(L8)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 17322.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 02-09-2024

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMINAIRE] 8' LINEAR ARCHITECTURAL LED LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC SQUARE LENS

[MORE] 0-10V DIMMING DRIVER

[LUMCAT] LLM-8-L10-835-x-SQ-(L8)-DIM-UNV

[LAMP] LED

[LAMPCAT] HLM 80 CRI, 3500K CCT

[_SEARCH_SOURCETYPE]LED

[_SEARCH_APPLICATION]INDOOR,ARCHITECTURAL,DIRECT,LINEAR

[_SEARCH_MOUNTING]CEILING,SURFACE,WALL

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6262
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	157
Total Luminaire Watts	40
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.10
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	7.74 ft
Luminous Width (90-270)	0.21 ft
Luminous Height	0.20 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8133	6030	6020
55	6521	5040	5389
65	5246	4351	4852
75	3943	3620	4013
85	2914	3147	3398

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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	1910.233	1910.233	1910.233	1910.233	1910.233
5	1917.911	1920.982	1927.124	1927.124	1931.731
10	1864.166	1871.844	1881.057	1887.200	1887.200
15	1768.962	1785.853	1798.137	1804.280	1807.351
20	1696.791	1721.359	1738.251	1750.535	1752.071
25	1527.879	1558.590	1583.159	1600.050	1606.193
30	1371.252	1412.712	1446.495	1477.206	1491.026
35	1233.052	1285.261	1339.006	1391.215	1412.712
40	1045.714	1113.279	1194.663	1272.977	1306.759
45	882.945	965.865	1079.497	1196.199	1243.801
50	723.247	823.059	959.723	1104.066	1160.881
55	580.441	692.536	859.912	1027.288	1091.781
60	457.596	577.369	760.101	939.761	1005.790
65	350.107	479.094	683.323	870.661	933.619
70	251.831	386.960	595.796	773.921	830.736
75	167.376	300.969	502.127	660.290	707.892
80	101.347	239.547	433.027	578.905	618.829
85	49.138	181.196	365.463	494.449	526.696
90	7.678	119.773	276.400	376.211	399.245
95	0.000	113.631	264.116	351.643	370.069
100	0.000	105.953	236.476	308.647	324.003
105	0.000	99.811	213.442	274.865	287.149
110	0.000	90.598	193.480	247.225	262.580
115	0.000	82.920	175.054	222.656	236.476
120	0.000	79.849	159.698	210.371	221.120
125	0.000	73.707	144.342	187.338	201.158
130	0.000	67.565	130.522	171.982	182.731
135	0.000	61.422	116.702	150.485	164.305
140	0.000	59.887	110.560	142.807	153.556
145	0.000	61.422	102.882	136.665	144.342
150	0.000	50.673	84.456	107.489	116.702
155	0.000	50.673	76.778	96.740	101.347
160	0.000	41.460	62.958	78.313	82.920
165	0.000	36.853	56.816	62.958	66.029
170	0.000	0.000	42.996	53.744	55.280
175	0.000	0.000	19.962	38.389	38.389
180	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : LLM-8-L10-835-X-SQ-(L8)-DIM-UNV_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	690.55	N.A.	11.00
0-30	1419.86	N.A.	22.70
0-40	2249.81	N.A.	35.90
0-60	3845.26	N.A.	61.40
0-80	5014.85	N.A.	80.10
0-90	5372.38	N.A.	85.80
10-90	5190.45	N.A.	82.90
20-40	1559.26	N.A.	24.90
20-50	2389.63	N.A.	38.20
40-70	2255.68	N.A.	36.00
60-80	1169.59	N.A.	18.70
70-80	509.35	N.A.	8.10
80-90	357.53	N.A.	5.70
90-110	441.19	N.A.	7.00
90-120	591.50	N.A.	9.40
90-130	705.71	N.A.	11.30
90-150	843.49	N.A.	13.50
90-180	890.02	N.A.	14.20
110-180	448.83	N.A.	7.20
0-180	6262.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	181.93
10-20	508.62
20-30	729.32
30-40	829.95
40-50	830.37
50-60	765.08
60-70	660.23
70-80	509.35
80-90	357.53
90-100	246.74
100-110	194.45
110-120	150.31
120-130	114.21
130-140	81.13
140-150	56.65
150-160	31.30
160-170	13.18
170-180	2.04

IES INDOOR REPORT**PHOTOMETRIC FILENAME : LLM-8-L10-835-X-SQ-(L8)-DIM-UNV_.IES****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	116	116	116	116	111	111	111	111	103	103	103	96	96	96	89	89	89	86
1	104	98	93	89	99	95	90	86	88	84	81	81	78	76	75	73	71	68
2	94	85	78	71	90	82	75	69	76	70	66	70	66	62	65	62	59	56
3	85	74	66	59	82	72	64	58	67	60	55	62	57	52	58	53	49	46
4	78	66	57	50	75	63	55	49	59	52	47	55	49	44	51	46	42	40
5	72	59	50	43	69	57	48	42	53	46	40	50	43	38	46	41	37	34
6	66	53	44	37	63	51	43	37	48	41	35	45	39	34	42	37	32	30
7	62	48	39	33	59	46	38	32	44	36	31	41	35	30	38	33	29	27
8	57	44	35	29	55	42	34	29	40	33	28	38	31	27	35	30	26	24
9	54	40	32	26	51	39	31	26	37	30	25	35	29	24	33	27	23	22
10	50	37	29	24	48	36	29	24	34	27	23	32	26	22	31	25	21	20

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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	13.8	15.2	14.4	15.8	16.4	18.9	20.3	19.5	20.8	21.5
	3H	15.0	16.2	15.5	16.8	17.5	21.7	22.9	22.2	23.5	24.2
	4H	15.3	16.5	15.9	17.1	17.8	22.9	24.1	23.5	24.7	25.4
	6H	15.5	16.6	16.1	17.2	17.9	24.3	25.4	24.9	26.0	26.7
	8H	15.5	16.6	16.1	17.2	17.9	25.0	26.1	25.6	26.7	27.4
	12H	15.5	16.6	16.2	17.2	17.9	25.8	26.8	26.4	27.4	28.2

UGR Viewed Endwise

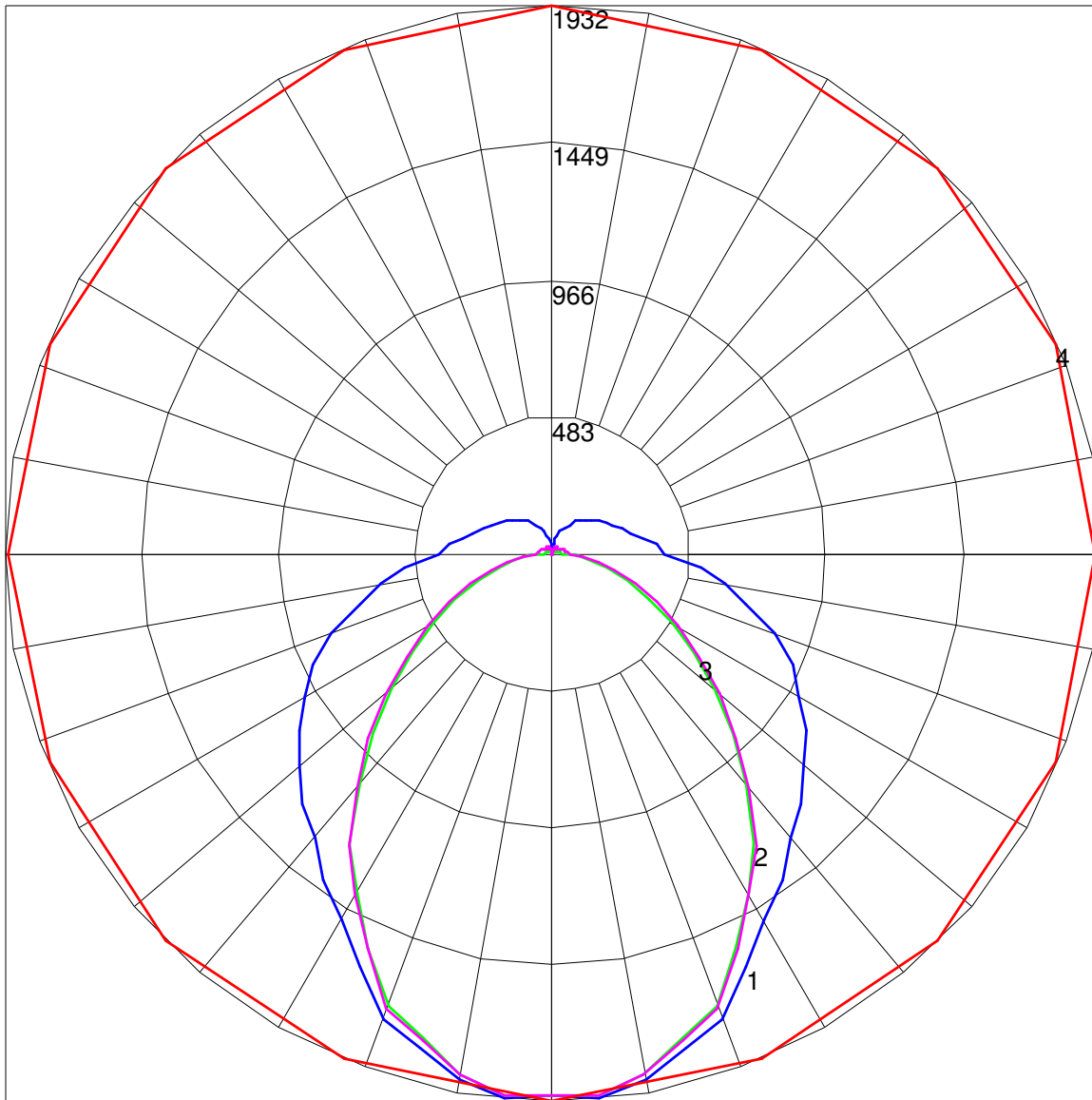
4H	2H	15.2	16.4	15.8	17.0	17.7	19.1	20.3	19.7	20.9	21.6
	3H	16.6	17.6	17.2	18.3	19.0	22.1	23.1	22.7	23.7	24.4
	4H	17.1	18.0	17.7	18.6	19.4	23.5	24.5	24.2	25.1	25.8
	6H	17.4	18.2	18.0	18.9	19.6	25.0	25.9	25.7	26.6	27.3
	8H	17.4	18.2	18.1	18.9	19.7	25.9	26.6	26.5	27.3	28.1
	12H	17.5	18.2	18.2	18.9	19.7	26.8	27.5	27.4	28.2	28.9

8H	4H	18.2	19.0	18.8	19.6	20.4	23.6	24.4	24.3	25.1	25.8
	6H	18.7	19.4	19.4	20.1	20.9	25.3	26.0	26.0	26.7	27.4
	8H	18.9	19.5	19.6	20.2	21.0	26.2	26.8	26.9	27.5	28.3
	12H	19.0	19.5	19.7	20.2	21.1	27.3	27.8	28.0	28.5	29.4

12H	4H	18.5	19.2	19.2	19.9	20.7	23.6	24.3	24.3	25.0	25.8
	6H	19.2	19.8	19.9	20.5	21.3	25.3	25.9	26.0	26.6	27.4
	8H	19.5	20.0	20.2	20.7	21.6	26.3	26.8	27.0	27.5	28.4

Maximum UGR = 29.4

POLAR GRAPH



Maximum Candela = 1931.731 Located At Horizontal Angle = 90, Vertical Angle = 5

1 - Vertical Plane Through Horizontal Angles (90 - 270) (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 (5) (Through Max. Cd.)