

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HZL-4-L107-835-HIAFR-L(70)-XXXX-DRV-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from HZL-4-L107-840-HIAFR-xxxx-DRV-UNV_

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUE DATE] 9-SEP-2025

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] FULLY SEALED & GASKETED HAZARDOUS LOCATION LED LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC DROP LENS

[LUMCAT] HZL-4-L107-8435-HIAFR-(L70)-xxxx-DRV-UNV

[LAMPCAT] HLM 80 CRI, 3500K CCT

[_SEARCH_SOURCE TYPE] LED

[_SEARCH_APPLICATION] INDOOR, OUTDOOR, COMMERCIAL, INDUSTRIAL

[_SEARCH_MOUNTING] SURFACE, SUSPENDED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6928
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	140
Total Luminaire Watts	49.38
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.25 ft
Luminous Width (90-270)	1.10 ft
Luminous Height	0.23 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4781	4069	4002
55	4085	3424	3771
65	3341	2976	3252
75	2317	2354	2703
85	1010	1711	2090

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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	2468.304	2468.304	2468.304	2468.304	2468.304
5	2499.183	2460.298	2443.429	2437.139	2434.852
10	2464.301	2428.562	2415.410	2409.977	2407.976
15	2401.114	2373.666	2365.947	2363.659	2360.514
20	2325.061	2299.614	2288.464	2290.179	2282.173
25	2222.417	2192.110	2184.105	2180.960	2178.672
30	2100.046	2075.171	2056.872	2047.723	2025.708
35	1946.223	1921.349	1904.480	1850.156	1823.566
40	1759.521	1741.222	1714.060	1648.014	1637.149
45	1554.520	1568.530	1487.330	1475.321	1490.761
50	1336.081	1324.930	1280.041	1341.227	1365.530
55	1101.059	1088.192	1083.046	1197.984	1223.144
60	873.470	886.336	924.649	1030.724	1059.601
65	687.340	681.335	766.252	855.744	866.322
70	481.481	507.785	609.285	682.765	696.203
75	314.221	350.246	449.172	518.078	541.523
80	171.835	211.863	316.508	379.123	395.992
85	62.044	113.508	202.428	255.036	267.902
90	28.306	64.903	123.801	160.684	169.548
95	25.732	49.463	85.774	105.789	109.791
100	24.875	39.456	66.332	80.056	82.629
105	22.015	30.879	54.896	67.190	70.907
110	17.727	22.587	45.746	58.613	62.329
115	13.724	16.583	37.169	50.893	54.896
120	10.007	10.865	29.735	42.887	47.748
125	7.434	6.290	22.587	35.739	39.456
130	5.146	4.575	16.011	27.448	32.022
135	4.003	0.000	10.007	20.872	24.017
140	0.000	0.000	5.432	13.724	17.155
145	0.000	0.000	0.000	8.863	10.865
150	0.000	0.000	0.000	3.717	5.146
155	0.000	0.000	0.000	0.000	3.717
160	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : HZL-4-L107-835-HIAFR-L(70)-XXXX-DRV-UNV_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	902.13	N.A.	13.00
0-30	1910.37	N.A.	27.60
0-40	3091.23	N.A.	44.60
0-60	5275.87	N.A.	76.20
0-80	6507.3	N.A.	93.90
0-90	6719.29	N.A.	97.00
10-90	6486.09	N.A.	93.60
20-40	2189.1	N.A.	31.60
20-50	3357.57	N.A.	48.50
40-70	2949.47	N.A.	42.60
60-80	1231.43	N.A.	17.80
70-80	466.59	N.A.	6.70
80-90	211.99	N.A.	3.10
90-110	142.39	N.A.	2.10
90-120	177.03	N.A.	2.60
90-130	197.02	N.A.	2.80
90-150	208.52	N.A.	3.00
90-180	208.83	N.A.	3.00
110-180	66.44	N.A.	1.00
0-180	6928.12	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	233.20
10-20	668.93
20-30	1008.24
30-40	1180.86
40-50	1168.47
50-60	1016.17
60-70	764.83
70-80	466.59
80-90	211.99
90-100	89.08
100-110	53.31
110-120	34.64
120-130	19.99
130-140	8.99
140-150	2.51
150-160	0.31
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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97
1	108	103	98	94	105	100	96	93	95	92	89	91	88	86	87	85	83	80
2	98	90	83	77	95	88	81	76	83	78	74	80	75	71	76	73	69	67
3	89	79	71	64	87	77	70	63	74	67	62	71	65	60	68	63	59	57
4	82	70	61	55	79	68	60	54	66	59	53	63	57	52	60	55	51	49
5	75	63	54	47	73	61	53	47	59	52	46	57	50	45	54	49	44	42
6	70	56	48	41	68	55	47	41	53	46	40	51	45	40	49	44	39	37
7	65	51	43	36	63	50	42	36	49	41	36	47	40	35	45	39	35	33
8	60	47	38	33	59	46	38	32	44	37	32	43	36	32	42	36	31	29
9	56	43	35	29	55	42	35	29	41	34	29	40	33	29	38	33	28	26
10	53	40	32	27	51	39	32	27	38	31	26	37	30	26	36	30	26	24

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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	15.5	17.1	15.9	17.5	17.8	16.8	18.4	17.2	18.8	19.2
	3H	16.8	18.2	17.3	18.6	19.1	18.7	20.2	19.2	20.5	21.0
	4H	17.2	18.6	17.7	19.0	19.4	19.6	20.9	20.0	21.3	21.7
	6H	17.5	18.7	17.9	19.1	19.6	20.3	21.5	20.7	21.9	22.4
	8H	17.5	18.7	18.0	19.2	19.6	20.6	21.8	21.1	22.2	22.7
	12H	17.5	18.7	18.0	19.1	19.6	20.9	22.0	21.4	22.5	23.0

UGR Viewed Endwise

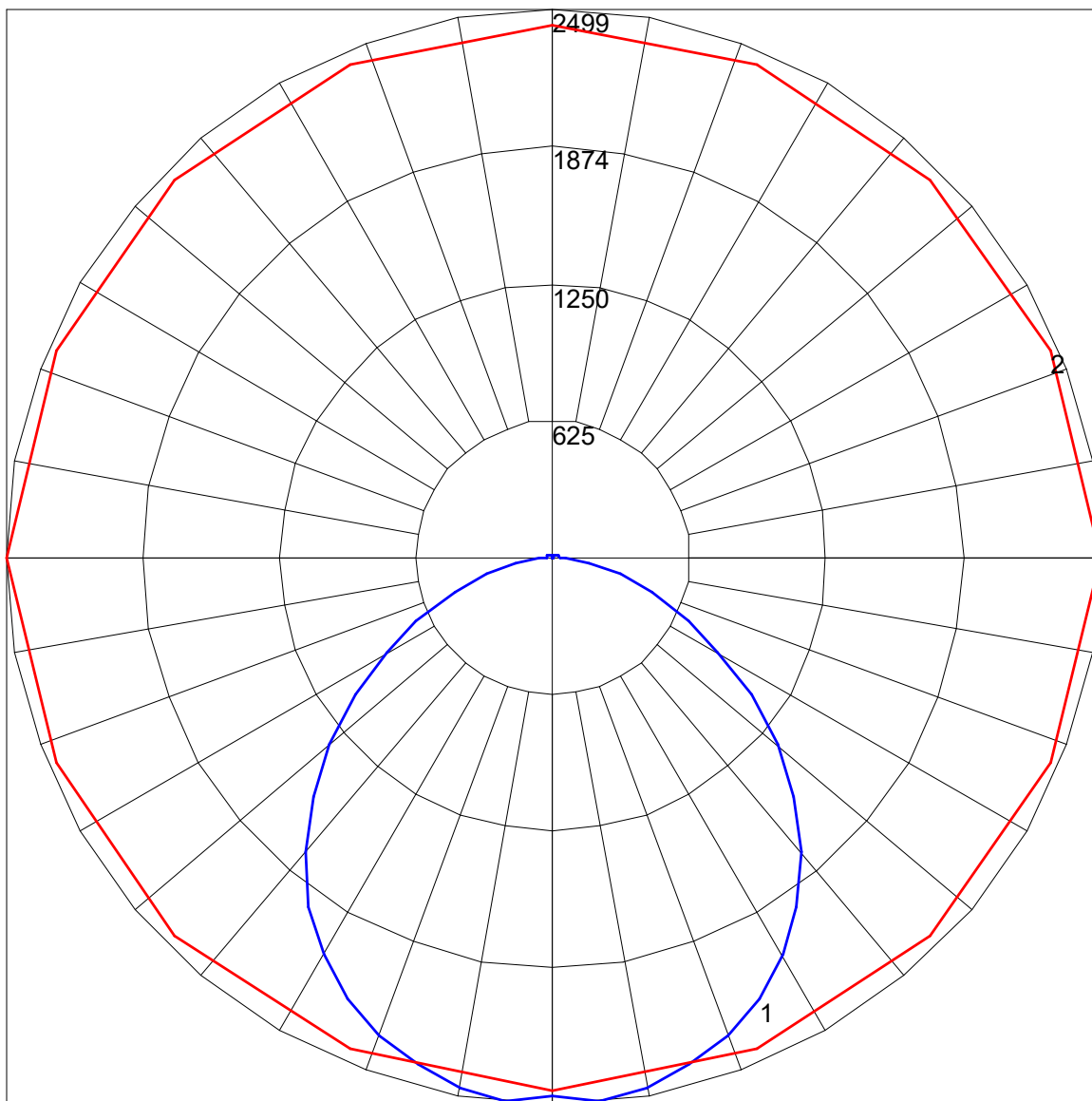
4H	2H	16.2	17.5	16.6	17.9	18.4	17.2	18.6	17.7	19.0	19.4
	3H	17.7	18.8	18.2	19.3	19.8	19.4	20.5	19.9	21.0	21.4
	4H	18.2	19.2	18.7	19.7	20.2	20.4	21.4	20.8	21.8	22.3
	6H	18.6	19.4	19.1	19.9	20.5	21.2	22.1	21.7	22.6	23.2
	8H	18.6	19.5	19.1	20.0	20.5	21.6	22.5	22.1	23.0	23.5
	12H	18.7	19.4	19.2	19.9	20.5	22.0	22.8	22.6	23.3	23.8

8H	4H	18.7	19.5	19.2	20.0	20.5	20.5	21.4	21.0	21.9	22.4
	6H	19.1	19.8	19.6	20.3	20.9	21.6	22.3	22.1	22.8	23.3
	8H	19.2	19.8	19.8	20.4	21.0	22.1	22.7	22.6	23.3	23.8
	12H	19.3	19.9	19.8	20.4	21.0	22.6	23.1	23.1	23.7	24.3

12H	4H	18.7	19.5	19.3	20.0	20.6	20.5	21.3	21.1	21.8	22.4
	6H	19.2	19.9	19.8	20.4	21.0	21.6	22.2	22.2	22.7	23.3
	8H	19.4	20.0	20.0	20.5	21.1	22.1	22.7	22.7	23.2	23.9

Maximum UGR = 24.3

POLAR GRAPH



Maximum Candela = 2499.183 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)