

IES INDOOR REPORT

PHOTOMETRIC FILENAME : HZL-4-L107-840-PC-(L35)-XXXX-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TESTLAB] GEN from BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 06/06/2025

[TEST] BALLABS TEST NO. 21051.0

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

[LUMINAIRE] 52 INCH SEALED & GASKETED LED LUMINAIRE

[MORE] WHITE REFLECTOR w/CLEAR ACRYLIC DROP LENS

[LUMCAT] HZL-4-L107-840-PC-(L35)-xxxx-DIM-UNV

[LAMPCAT] HLM 80 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3583
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	159
Total Luminaire Watts	22.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.30
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.36
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	2669	2048	2046
55	2417	1667	2182
65	1962	1872	1773
75	1142	1057	1321
85	394	752	827

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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	1250.574	1250.574	1250.574	1250.574	1250.574
5	1265.139	1253.459	1233.125	1230.674	1229.232
10	1247.979	1229.808	1226.059	1224.184	1226.203
15	1220.002	1208.466	1214.666	1211.638	1210.340
20	1185.104	1179.624	1177.317	1176.163	1175.586
25	1139.534	1142.995	1136.506	1138.525	1139.678
30	1087.042	1086.321	1091.224	1095.695	1096.704
35	1024.456	1028.494	1030.512	1063.248	982.203
40	955.813	956.245	1066.709	687.153	681.673
45	867.701	866.548	748.585	641.583	762.141
50	768.053	775.120	551.741	851.838	815.354
55	651.533	714.552	527.370	696.238	707.919
60	530.687	509.199	623.124	603.223	624.999
65	403.639	303.126	481.944	504.873	472.426
70	275.438	219.773	377.682	330.093	260.008
75	154.880	156.178	201.747	186.750	264.622
80	66.192	114.646	101.523	147.237	151.419
85	24.227	51.627	88.977	111.761	105.993
90	5.913	24.948	34.466	33.601	32.591
95	7.643	8.941	10.960	13.411	13.844
100	12.113	8.220	9.950	10.816	10.671
105	10.239	9.518	9.518	12.835	13.123
110	7.499	6.922	7.643	9.518	10.239
115	5.047	6.345	6.345	7.066	7.643
120	3.605	3.605	9.950	5.768	6.345
125	2.452	1.730	7.210	13.123	10.383
130	1.730	0.000	3.173	7.066	12.546
135	1.298	0.000	4.903	3.749	3.749
140	0.000	0.000	2.019	7.643	5.047
145	0.000	0.000	0.000	3.317	5.624
150	0.000	0.000	0.000	1.442	1.875
155	0.000	0.000	0.000	0.000	1.298
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

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Zone	Lumens	%Lamp	%Fixt
0-20	460.04	N.A.	12.80
0-30	985.43	N.A.	27.50
0-40	1617.28	N.A.	45.10
0-60	2816.77	N.A.	78.60
0-80	3456.89	N.A.	96.50
0-90	3539.95	N.A.	98.80
10-90	3421.79	N.A.	95.50
20-40	1157.24	N.A.	32.30
20-50	1767.99	N.A.	49.30
40-70	1630.15	N.A.	45.50
60-80	640.12	N.A.	17.90
70-80	209.46	N.A.	5.80
80-90	83.06	N.A.	2.30
90-110	27.05	N.A.	0.80
90-120	33.85	N.A.	0.90
90-130	39.39	N.A.	1.10
90-150	42.99	N.A.	1.20
90-180	43.11	N.A.	1.20
110-180	16.06	N.A.	0.40
0-180	3583.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	118.16
10-20	341.88
20-30	525.39
30-40	631.85
40-50	610.75
50-60	588.73
60-70	430.66
70-80	209.46
80-90	83.06
90-100	16.44
100-110	10.61
110-120	6.80
120-130	5.54
130-140	2.52
140-150	1.08
150-160	0.11
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	110	110	110	105	105	105	101	101	101	99
1	108	104	99	96	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	84	78	96	88	82	77	85	79	75	81	77	73	78	74	71	69
3	90	80	71	65	87	78	70	64	75	68	63	72	66	62	69	64	60	58
4	82	70	62	55	80	69	61	55	66	59	54	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	55	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	50	44	40	38
7	65	51	43	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	33	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	35	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	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

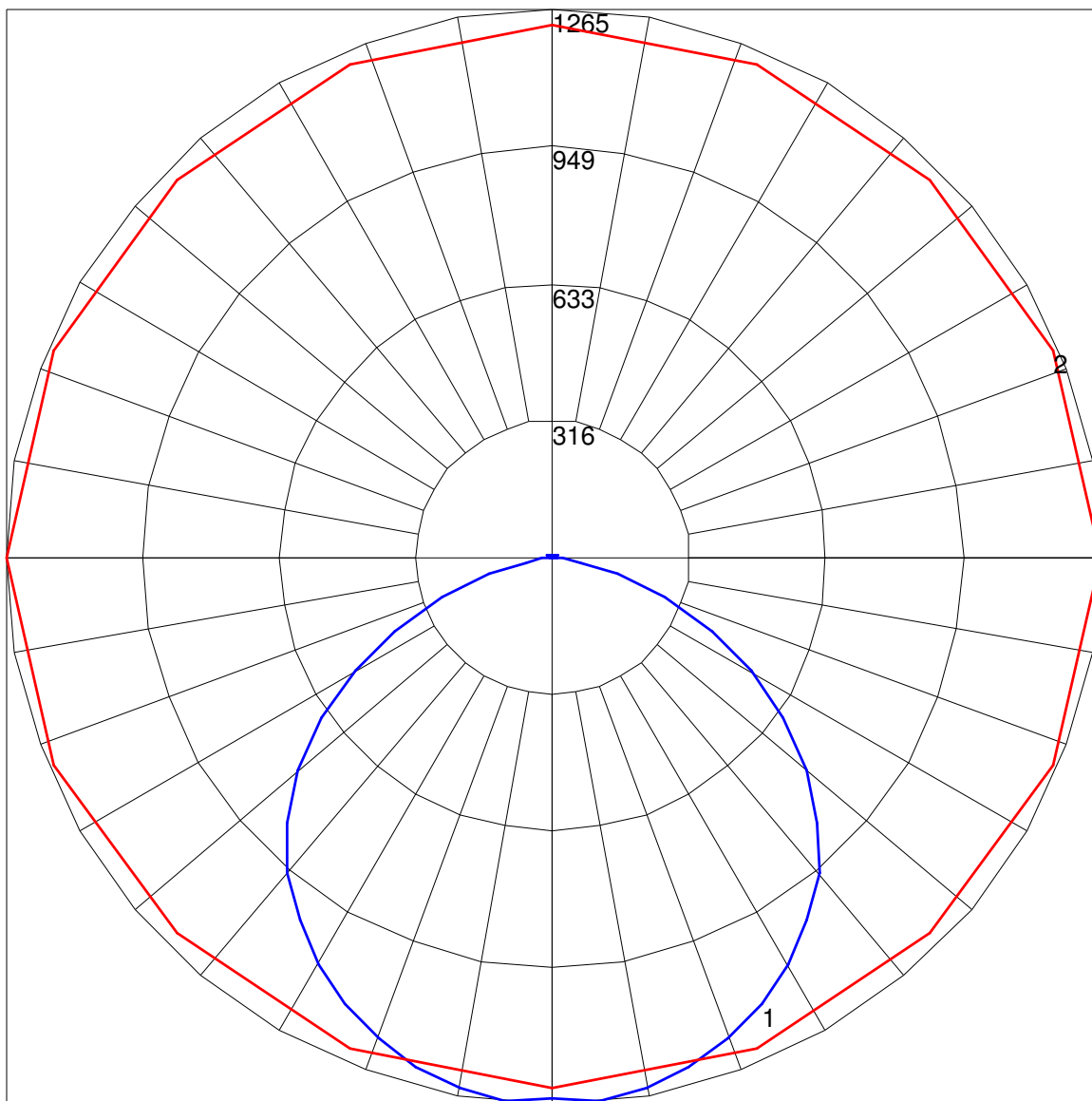
X=2H	Y=2H	14.5	16.1	14.9	16.4	16.8	15.4	17.0	15.8	17.4	17.7
	3H	15.4	16.8	15.8	17.2	17.6	16.8	18.2	17.2	18.6	19.0
	4H	15.7	17.0	16.1	17.4	17.8	17.3	18.7	17.7	19.1	19.5
	6H	15.8	17.1	16.2	17.4	17.9	17.8	19.0	18.2	19.4	19.8
	8H	15.8	17.0	16.2	17.4	17.9	18.0	19.2	18.4	19.6	20.0
	12H	15.8	17.0	16.3	17.4	17.8	18.2	19.3	18.6	19.7	20.2

UGR Viewed Endwise

4H	2H	15.2	16.5	15.6	16.9	17.3	15.9	17.3	16.3	17.7	18.1
	3H	16.2	17.4	16.7	17.8	18.2	17.5	18.6	17.9	19.1	19.5
	4H	16.6	17.6	17.0	18.1	18.5	18.1	19.1	18.5	19.5	20.0
	6H	16.8	17.7	17.3	18.2	18.6	18.6	19.5	19.1	20.0	20.5
	8H	16.8	17.7	17.3	18.2	18.6	18.9	19.7	19.4	20.2	20.7
	12H	16.9	17.6	17.4	18.1	18.6	19.1	19.9	19.6	20.4	20.9
8H	4H	16.8	17.7	17.3	18.1	18.6	18.2	19.0	18.7	19.5	20.0
	6H	17.1	17.8	17.6	18.3	18.8	18.8	19.5	19.3	20.0	20.5
	8H	17.2	17.9	17.7	18.4	18.9	19.2	19.8	19.7	20.3	20.8
	12H	17.3	17.8	17.8	18.3	18.9	19.5	20.1	20.1	20.6	21.2
12H	4H	16.9	17.6	17.4	18.1	18.6	18.2	18.9	18.7	19.4	19.9
	6H	17.2	17.8	17.7	18.3	18.9	18.8	19.5	19.4	20.0	20.5
	8H	17.3	17.9	17.8	18.4	19.0	19.2	19.8	19.7	20.3	20.9

Maximum UGR = 21.2

POLAR GRAPH



Maximum Candela = 1265.139 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.)