



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80R-4-L52-840-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN from BALLABS TEST NO. 21046.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 18-SEP-2020
[MANUFAC] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 22" LED ARRAY 4' WHITE INDUSTRIAL LUMINAIRE
[MORE] WHITE SIDE REFL w/CENTER 4.5" RADIUS FROST/RIB ACRYLIC LEN
[LUMCAT] 80R-4-L52/840-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5224
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	139
Total Luminaire Watts	37.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.98 ft
Luminous Width (90-270)	1.05 ft
Luminous Height	0.21 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3471	3518	3790
55	2991	3164	3561
65	2449	2793	3235
75	1900	2513	3025
85	851	2238	2678

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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	1787.438	1787.438	1787.438	1787.438	1787.438
5	1801.624	1773.843	1773.252	1770.296	1771.478
10	1768.523	1745.471	1748.426	1750.199	1751.973
15	1714.734	1692.864	1707.641	1717.690	1721.236
20	1637.893	1623.707	1650.897	1668.039	1678.678
25	1540.956	1538.000	1575.830	1605.975	1614.250
30	1429.241	1438.107	1490.122	1526.770	1538.000
35	1293.883	1318.117	1389.638	1440.471	1461.159
40	1159.707	1188.079	1270.830	1341.169	1364.813
45	1005.434	1055.676	1139.610	1222.953	1249.551
50	864.165	911.451	1020.211	1114.784	1137.245
55	717.576	773.138	884.853	985.337	1019.620
60	584.582	634.233	762.498	865.347	885.444
65	448.042	510.696	633.642	725.851	757.770
70	335.145	394.253	510.696	612.954	638.371
75	228.749	291.404	420.261	500.648	529.611
80	131.812	203.924	329.234	399.573	422.625
85	46.105	130.630	229.341	281.356	296.133
90	1.182	52.015	128.265	171.414	180.281
95	0.000	5.911	34.874	74.477	95.165
100	0.000	2.955	4.729	2.955	7.684
105	0.000	0.000	3.547	2.364	1.182
110	0.000	0.000	2.364	2.364	2.364
115	0.000	0.000	1.182	0.591	0.591
120	0.000	0.000	1.182	0.000	0.000
125	0.000	0.000	0.591	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
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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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	650.88	N.A.	12.50
0-30	1376.2	N.A.	26.30
0-40	2239.89	N.A.	42.90
0-60	3905.75	N.A.	74.80
0-80	4944.05	N.A.	94.60
0-90	5167.33	N.A.	98.90
10-90	4998.55	N.A.	95.70
20-40	1589.01	N.A.	30.40
20-50	2467.84	N.A.	47.20
40-70	2281.77	N.A.	43.70
60-80	1038.29	N.A.	19.90
70-80	422.39	N.A.	8.10
80-90	223.28	N.A.	4.30
90-110	55.69	N.A.	1.10
90-120	56.40	N.A.	1.10
90-130	56.53	N.A.	1.10
90-150	56.53	N.A.	1.10
90-180	56.53	N.A.	1.10
110-180	0.84	N.A.	0.00
0-180	5223.86	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	168.77
10-20	482.10
20-30	725.32
30-40	863.69
40-50	878.83
50-60	787.03
60-70	615.90
70-80	422.39
80-90	223.28
90-100	53.48
100-110	2.21
110-120	0.70
120-130	0.13
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	205	205	205	205	200	200	200	200	190	190	190	182	182	182	174	174	174	170
1	185	176	168	161	180	172	164	158	164	158	152	157	152	147	150	146	143	139
2	168	153	140	130	163	149	138	128	143	133	125	137	129	122	131	125	119	115
3	153	134	119	108	148	131	117	106	125	114	104	120	111	102	116	107	100	96
4	140	119	103	91	136	116	101	90	111	99	89	107	96	87	103	94	86	82
5	129	106	90	78	125	104	89	78	100	87	77	96	85	76	93	83	75	71
6	119	95	80	68	115	94	79	68	90	77	67	87	75	66	84	74	66	62
7	110	86	71	60	107	85	70	60	82	69	59	79	68	59	77	66	58	55
8	103	79	64	54	100	78	63	54	75	62	53	73	61	53	71	60	52	49
9	96	72	58	48	93	71	58	48	69	57	48	67	56	48	65	55	47	44
10	90	67	53	44	88	66	53	44	64	52	44	62	51	43	61	50	43	40

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UGR TABLE - CORRECTED

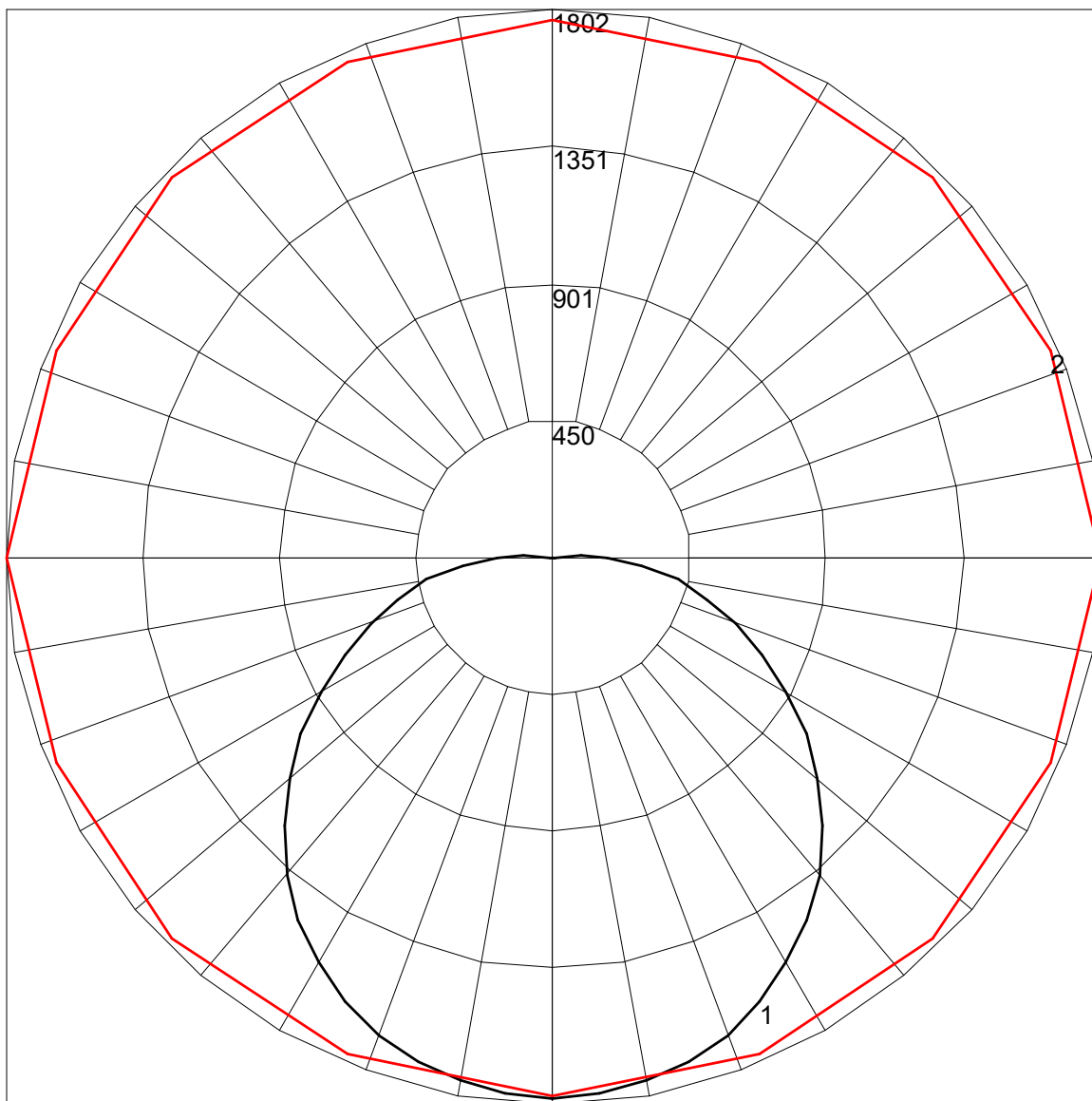
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	12.7	14.3	13.1	14.7	15.0	15.1	16.8	15.5	17.1	17.5
	3H	14.1	15.6	14.5	15.9	16.3	17.3	18.8	17.7	19.1	19.5
	4H	14.6	16.0	15.0	16.3	16.7	18.3	19.7	18.7	20.1	20.5
	6H	14.9	16.2	15.3	16.6	17.0	19.3	20.6	19.7	21.0	21.4
	8H	14.9	16.2	15.4	16.6	17.0	19.7	21.0	20.2	21.4	21.8
	12H	15.0	16.2	15.4	16.6	17.0	20.1	21.3	20.6	21.8	22.2
4H	2H	13.6	15.0	14.0	15.4	15.8	15.6	17.0	16.0	17.3	17.7
	3H	15.3	16.5	15.7	16.9	17.3	18.0	19.2	18.4	19.6	20.0
	4H	15.9	16.9	16.3	17.4	17.8	19.1	20.2	19.6	20.7	21.1
	6H	16.3	17.2	16.7	17.7	18.2	20.3	21.3	20.8	21.7	22.2
	8H	16.4	17.3	16.9	17.8	18.2	20.9	21.8	21.3	22.2	22.7
	12H	16.4	17.3	16.9	17.8	18.3	21.4	22.2	21.9	22.7	23.2
8H	4H	16.6	17.5	17.0	17.9	18.4	19.4	20.3	19.8	20.7	21.2
	6H	17.2	17.9	17.7	18.4	18.9	20.7	21.5	21.2	22.0	22.5
	8H	17.4	18.0	17.9	18.6	19.1	21.4	22.1	21.9	22.6	23.1
	12H	17.5	18.1	18.0	18.6	19.2	22.1	22.7	22.6	23.2	23.8
12H	4H	16.7	17.5	17.2	18.0	18.5	19.4	20.2	19.9	20.7	21.2
	6H	17.4	18.1	18.0	18.6	19.2	20.8	21.5	21.3	21.9	22.5
	8H	17.7	18.3	18.2	18.9	19.4	21.5	22.1	22.0	22.6	23.2

Maximum UGR = 23.8

POLAR GRAPH



Maximum Candela = 1801.624 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)