



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 80R-4-L52-835-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] 11-17-2021

[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-L52-835-RA-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5067
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
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	3367	3413	3677
55	2901	3069	3454
65	2376	2709	3138
75	1843	2438	2934
85	825	2171	2597

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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	1733.815	1733.815	1733.815	1733.815	1733.815
5	1747.575	1720.628	1720.054	1717.187	1718.334
10	1715.467	1693.107	1695.973	1697.693	1699.413
15	1663.292	1642.078	1656.412	1666.159	1669.599
20	1588.757	1574.996	1601.370	1617.998	1628.318
25	1494.727	1491.860	1528.555	1557.796	1565.823
30	1386.364	1394.964	1445.419	1480.967	1491.860
35	1255.066	1278.574	1347.949	1397.257	1417.325
40	1124.915	1152.436	1232.705	1300.934	1323.868
45	975.271	1024.006	1105.421	1186.264	1212.065
50	838.240	884.108	989.604	1081.341	1103.128
55	696.049	749.944	858.307	955.777	989.031
60	567.045	615.206	739.623	839.386	858.880
65	434.600	495.376	614.633	704.075	735.036
70	325.090	382.425	495.376	594.565	619.219
75	221.887	282.662	407.653	485.629	513.723
80	127.857	197.806	319.357	387.586	409.946
85	44.721	126.711	222.460	272.915	287.249
90	1.147	50.455	124.417	166.272	174.872
95	0.000	5.734	33.828	72.242	92.310
100	0.000	2.867	4.587	2.867	7.454
105	0.000	0.000	3.440	2.293	1.147
110	0.000	0.000	2.293	2.293	2.293
115	0.000	0.000	1.147	0.573	0.573
120	0.000	0.000	1.147	0.000	0.000
125	0.000	0.000	0.573	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	631.35	N.A.	12.50
0-30	1334.91	N.A.	26.30
0-40	2172.69	N.A.	42.90
0-60	3788.58	N.A.	74.80
0-80	4795.72	N.A.	94.60
0-90	5012.31	N.A.	98.90
10-90	4848.6	N.A.	95.70
20-40	1541.34	N.A.	30.40
20-50	2393.8	N.A.	47.20
40-70	2213.32	N.A.	43.70
60-80	1007.14	N.A.	19.90
70-80	409.72	N.A.	8.10
80-90	216.58	N.A.	4.30
90-110	54.02	N.A.	1.10
90-120	54.70	N.A.	1.10
90-130	54.83	N.A.	1.10
90-150	54.83	N.A.	1.10
90-180	54.83	N.A.	1.10
110-180	0.81	N.A.	0.00
0-180	5067.14	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	163.71
10-20	467.64
20-30	703.56
30-40	837.78
40-50	852.47
50-60	763.42
60-70	597.43
70-80	409.72
80-90	216.58
90-100	51.87
100-110	2.15
110-120	0.68
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	107	102	97	93	104	100	95	92	95	92	88	91	88	86	87	85	83	81
2	97	89	81	75	95	87	80	74	83	77	72	79	75	71	76	72	69	67
3	89	78	69	62	86	76	68	62	73	66	60	70	64	59	67	62	58	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	54	50	48
5	75	61	52	45	72	60	52	45	58	50	45	56	49	44	54	48	43	41
6	69	55	46	40	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	26
10	52	39	31	26	51	38	31	25	37	30	25	36	30	25	35	29	25	23

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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	14.4	16.0	14.8	16.4	16.7	16.8	18.5	17.2	18.8	19.2
	3H	15.8	17.3	16.2	17.6	18.0	19.0	20.5	19.4	20.8	21.2
	4H	16.3	17.7	16.7	18.0	18.4	20.0	21.4	20.4	21.8	22.2
	6H	16.6	17.9	17.0	18.3	18.7	21.0	22.3	21.4	22.7	23.1
	8H	16.6	17.9	17.1	18.3	18.7	21.4	22.7	21.9	23.1	23.5
	12H	16.7	17.9	17.1	18.3	18.7	21.8	23.1	22.3	23.5	23.9

UGR Viewed Endwise

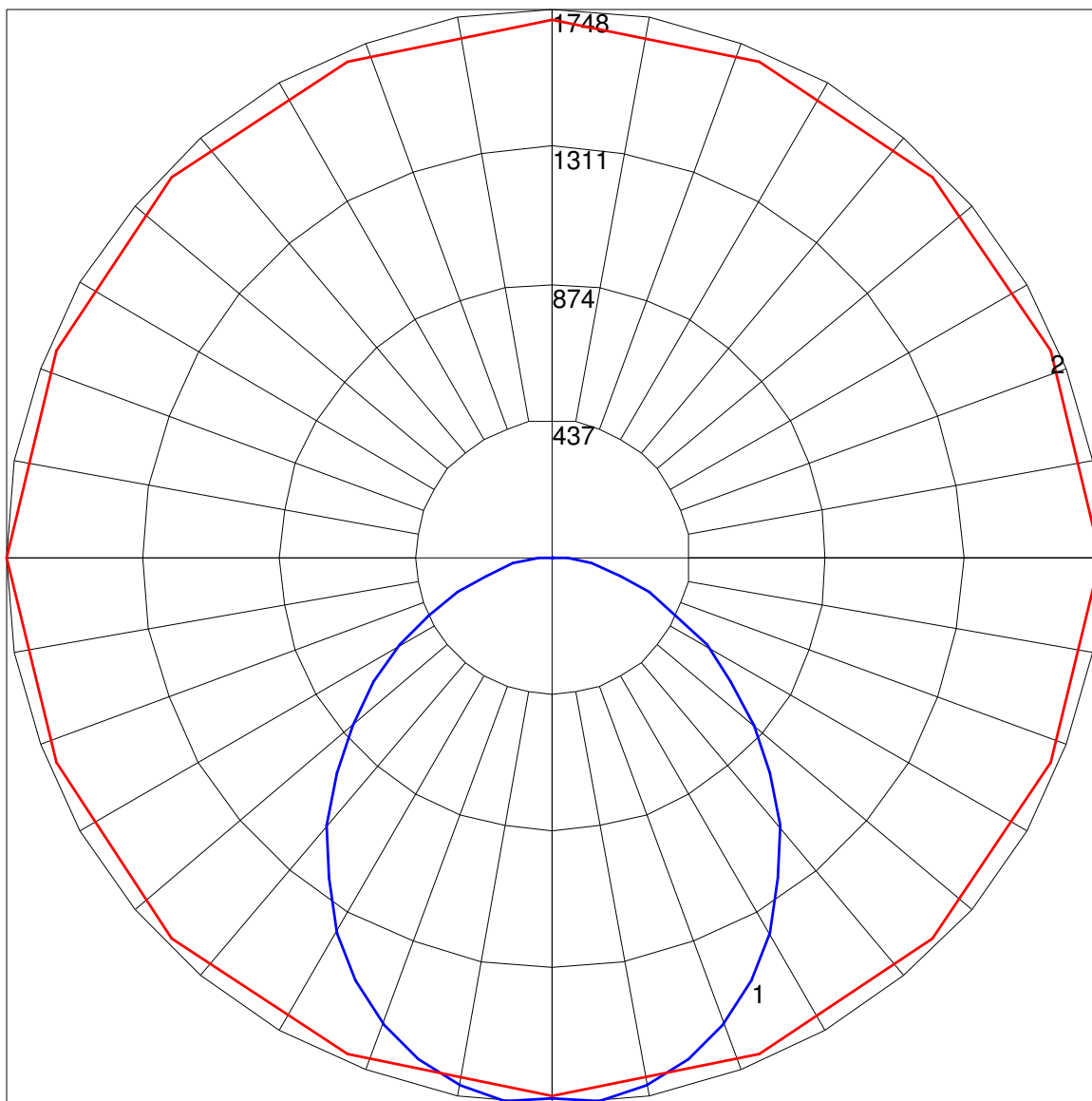
4H	2H	15.3	16.7	15.7	17.1	17.5	17.3	18.7	17.7	19.0	19.4
	3H	17.0	18.2	17.4	18.6	19.0	19.7	20.9	20.1	21.3	21.7
	4H	17.6	18.6	18.0	19.1	19.5	20.8	21.9	21.3	22.4	22.8
	6H	18.0	18.9	18.5	19.4	19.9	22.0	23.0	22.5	23.4	23.9
	8H	18.1	19.0	18.6	19.5	19.9	22.6	23.5	23.0	23.9	24.4
	12H	18.1	19.0	18.6	19.5	20.0	23.1	23.9	23.6	24.4	24.9

8H	4H	18.3	19.2	18.7	19.6	20.1	21.1	22.0	21.5	22.4	22.9
	6H	18.9	19.6	19.4	20.1	20.6	22.4	23.2	22.9	23.7	24.2
	8H	19.1	19.7	19.6	20.3	20.8	23.1	23.8	23.6	24.3	24.8
	12H	19.2	19.8	19.7	20.3	20.9	23.8	24.4	24.3	24.9	25.5

12H	4H	18.4	19.2	18.9	19.7	20.2	21.1	21.9	21.6	22.4	22.9
	6H	19.1	19.8	19.7	20.3	20.9	22.5	23.2	23.0	23.6	24.2
	8H	19.4	20.0	19.9	20.6	21.1	23.2	23.8	23.7	24.3	24.9

Maximum UGR = 25.5

POLAR GRAPH



Maximum Candela = 1747.575 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.)