



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 80R-4-L72-840-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-L72/840-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7291
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
Total Luminaire Watts	54.3
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	4845	4911	5290
55	4174	4416	4970
65	3418	3898	4515
75	2652	3508	4222
85	1187	3124	3737

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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	2494.680	2494.680	2494.680	2494.680	2494.680
5	2514.479	2475.706	2474.881	2470.756	2472.406
10	2468.281	2436.108	2440.233	2442.707	2445.182
15	2393.210	2362.686	2383.310	2397.335	2402.284
20	2285.965	2266.166	2304.114	2328.038	2342.887
25	2150.671	2146.547	2199.344	2241.417	2252.967
30	1994.754	2007.128	2079.725	2130.872	2146.547
35	1805.838	1839.661	1939.482	2010.428	2039.302
40	1618.572	1658.170	1773.665	1871.835	1904.833
45	1403.257	1473.379	1590.523	1706.843	1743.966
50	1206.092	1272.089	1423.881	1555.875	1587.224
55	1001.502	1079.048	1234.966	1375.209	1423.057
60	815.886	885.182	1064.199	1207.742	1235.791
65	625.320	712.766	884.357	1013.051	1057.599
70	467.752	550.249	712.766	855.484	890.957
75	319.260	406.705	586.547	698.741	739.164
80	183.966	284.611	459.503	557.673	589.847
85	64.347	182.316	320.085	392.681	413.305
90	1.650	72.597	179.016	239.238	251.613
95	0.000	8.250	48.673	103.945	132.819
100	0.000	4.125	6.600	4.125	10.724
105	0.000	0.000	4.950	3.300	1.650
110	0.000	0.000	3.300	3.300	3.300
115	0.000	0.000	1.650	0.825	0.825
120	0.000	0.000	1.650	0.000	0.000
125	0.000	0.000	0.825	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	908.41	N.A.	12.50
0-30	1920.72	N.A.	26.30
0-40	3126.15	N.A.	42.90
0-60	5451.16	N.A.	74.80
0-80	6900.27	N.A.	94.60
0-90	7211.9	N.A.	98.90
10-90	6976.35	N.A.	95.70
20-40	2217.74	N.A.	30.40
20-50	3444.3	N.A.	47.20
40-70	3184.6	N.A.	43.70
60-80	1449.12	N.A.	19.90
70-80	589.52	N.A.	8.10
80-90	311.63	N.A.	4.30
90-110	77.73	N.A.	1.10
90-120	78.71	N.A.	1.10
90-130	78.90	N.A.	1.10
90-150	78.90	N.A.	1.10
90-180	78.90	N.A.	1.10
110-180	1.17	N.A.	0.00
0-180	7290.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	235.55
10-20	672.86
20-30	1012.31
30-40	1205.43
40-50	1226.56
50-60	1098.44
60-70	859.60
70-80	589.52
80-90	311.63
90-100	74.64
100-110	3.09
110-120	0.98
120-130	0.19
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	286	286	286	286	279	279	279	279	266	266	266	254	254	254	243	243	243	238
1	258	246	234	224	251	240	230	220	229	221	213	219	212	206	210	204	199	194
2	234	213	196	181	227	208	192	179	199	186	174	191	180	170	183	174	166	160
3	213	187	166	150	207	183	164	149	175	159	146	168	154	143	161	150	140	134
4	195	165	144	127	189	162	142	126	156	138	124	150	134	122	144	131	120	114
5	179	148	126	109	174	145	124	109	139	121	107	134	118	106	130	116	104	99
6	166	133	111	95	161	131	110	95	126	108	94	122	105	93	118	103	92	87
7	154	121	99	84	149	119	98	84	115	96	83	111	94	82	107	93	81	77
8	143	110	89	75	139	108	89	75	105	87	74	102	85	74	99	84	73	68
9	134	101	81	68	130	100	80	67	97	79	67	94	78	66	91	77	66	61
10	125	93	74	61	122	92	74	61	89	72	61	87	71	60	85	70	60	56

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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	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

UGR Viewed Endwise

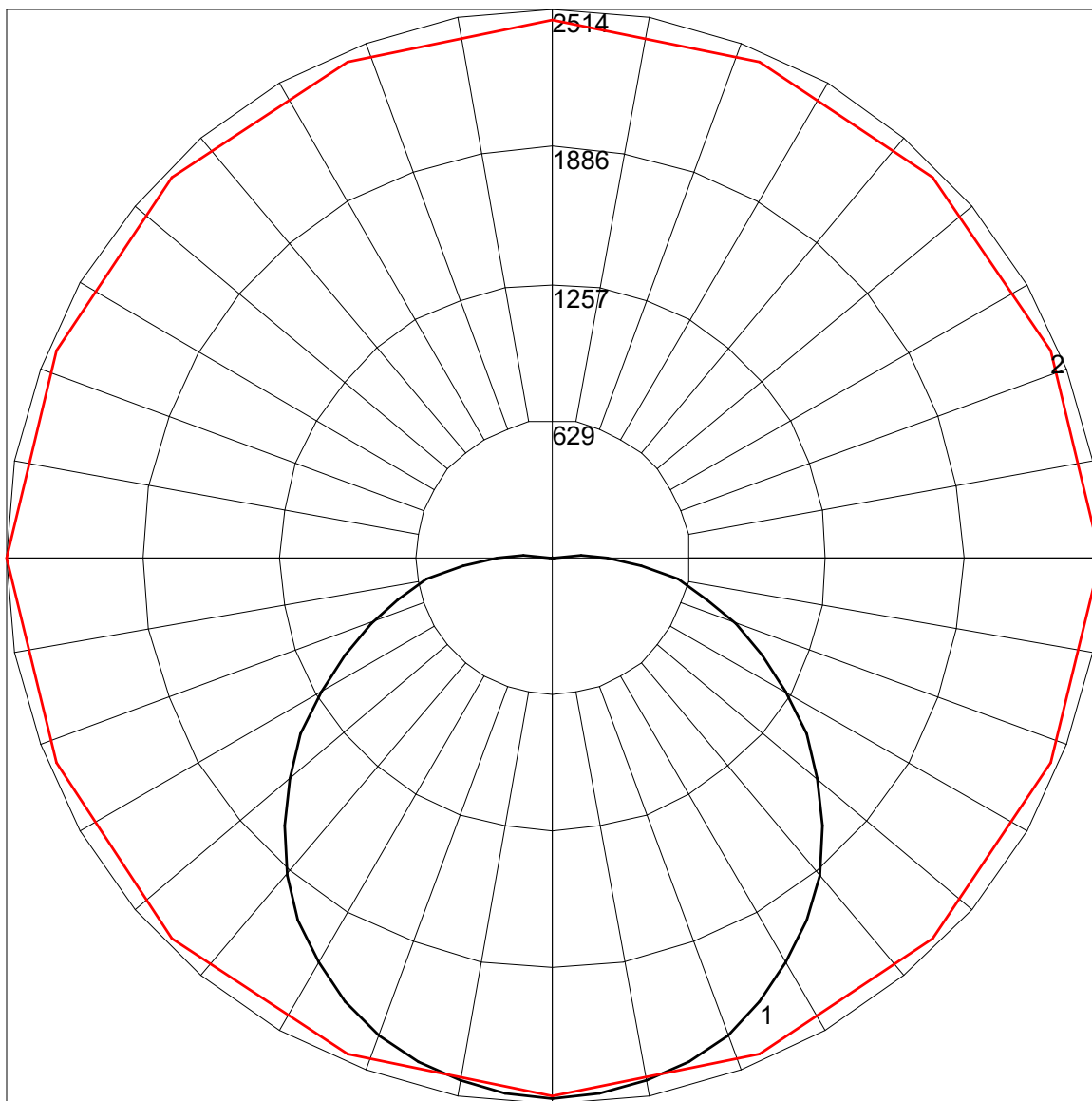
4H	2H	13.6	15.0	14.0	15.4	15.8	15.6	17.0	16.0	17.3	17.7
	3H	15.3	16.5	15.7	16.9	17.3	18.0	19.2	18.4	19.6	20.0
	4H	15.9	16.9	16.3	17.4	17.8	19.1	20.2	19.6	20.7	21.1
	6H	16.3	17.2	16.7	17.7	18.2	20.3	21.3	20.8	21.7	22.2
	8H	16.4	17.3	16.9	17.8	18.2	20.9	21.8	21.3	22.2	22.7
	12H	16.4	17.3	16.9	17.8	18.3	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 = 2514.479 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.)