



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 75R-4-L30-835-(L23)-EM-10WLP-DIM-UNV_EM MODE ONLY.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19750.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 21-DEC-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-56 LED 22"ARRAYS 4' STRIP LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC ROUND LENS

[LUMCAT] 75R-4-L30-835-(L23)-EM-10WLP-DIM-UNV EM MODE ONLY

[LAMPCAT] HLM 80 CRI 3500K CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, Utility, Warehouse, Linear

[_SEARCH_MOUNTING] Surface, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1493
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	149
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.72 ft
Luminous Width (90-270)	0.21 ft
Luminous Height	0.10 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5221	4415	4407
55	4309	3778	3879
65	3549	3173	3268
75	2398	2607	2678
85	1407	2240	2196

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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	478.189	478.189	478.189	478.189	478.189
5	483.439	476.363	476.591	475.450	470.657
10	475.450	469.516	470.657	469.972	465.635
15	461.527	457.190	460.386	461.755	457.190
20	440.528	439.386	444.864	447.147	444.408
25	415.876	417.474	425.235	430.484	428.430
30	387.573	389.855	403.094	411.083	410.626
35	353.107	357.215	376.389	387.573	389.171
40	316.358	319.325	343.520	360.411	364.291
45	272.990	280.522	308.369	330.738	336.216
50	228.024	240.122	274.131	298.554	305.402
55	184.885	200.634	238.980	264.545	274.360
60	148.821	163.429	205.199	230.763	241.035
65	114.355	130.332	173.700	196.982	205.884
70	80.117	101.572	143.799	164.114	172.787
75	49.303	76.693	116.181	135.354	142.886
80	27.390	52.955	92.671	110.474	115.268
85	11.641	36.520	73.954	89.247	92.442
90	1.598	25.108	57.291	70.758	75.095
95	0.228	17.119	45.879	56.150	60.715
100	0.000	11.184	35.607	45.879	49.531
105	0.000	7.989	27.619	37.433	40.401
110	0.000	5.478	21.227	30.586	33.097
115	0.000	4.565	17.347	25.564	27.390
120	0.000	3.424	13.239	20.999	22.825
125	0.000	2.054	9.815	16.662	18.717
130	0.000	1.370	7.076	13.010	14.836
135	0.000	0.685	5.250	10.271	11.641
140	0.000	0.685	3.652	7.989	9.130
145	0.000	0.000	2.283	5.022	6.391
150	0.000	0.000	1.598	3.652	4.565
155	0.000	0.000	1.141	1.826	2.967
160	0.000	0.000	0.457	1.370	1.598
165	0.000	0.000	0.000	0.457	0.685
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 : 75R-4-L30-835-(L23)-EM-10WLP-DIM-UNV_EM MODE ONLY.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	174.86	N.A.	11.70
0-30	370.18	N.A.	24.80
0-40	603.26	N.A.	40.40
0-60	1048.73	N.A.	70.20
0-80	1325.99	N.A.	88.80
0-90	1395.68	N.A.	93.50
10-90	1350.41	N.A.	90.50
20-40	428.40	N.A.	28.70
20-50	664.56	N.A.	44.50
40-70	609.70	N.A.	40.80
60-80	277.27	N.A.	18.60
70-80	113.04	N.A.	7.60
80-90	69.69	N.A.	4.70
90-110	66.50	N.A.	4.50
90-120	81.75	N.A.	5.50
90-130	90.40	N.A.	6.10
90-150	96.58	N.A.	6.50
90-180	97.23	N.A.	6.50
110-180	30.73	N.A.	2.10
0-180	1492.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	45.27
10-20	129.59
20-30	195.32
30-40	233.08
40-50	236.17
50-60	209.30
60-70	164.23
70-80	113.04
80-90	69.69
90-100	41.49
100-110	25.01
110-120	15.25
120-130	8.65
130-140	4.37
140-150	1.81
150-160	0.56
160-170	0.08
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	117	117	117	117	114	114	114	114	107	107	107	102	102	102	96	96	96	93
1	106	101	96	92	103	98	94	90	92	89	86	87	84	82	83	80	78	76
2	96	87	80	74	93	85	78	73	80	75	70	76	72	68	72	68	65	62
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	52
4	80	68	59	52	77	66	58	51	63	56	50	60	53	48	57	51	47	45
5	74	61	51	45	71	59	51	44	56	49	43	54	47	42	51	45	41	39
6	68	55	46	39	66	53	45	39	51	43	38	48	42	37	46	41	36	34
7	63	49	41	34	61	48	40	34	46	39	33	44	38	33	42	36	32	30
8	59	45	37	31	57	44	36	30	42	35	30	41	34	29	39	33	29	27
9	55	41	33	28	53	41	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	24	22

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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	14.2	15.7	14.6	16.1	16.6	17.6	19.0	18.0	19.5	20.0
	3H	15.4	16.7	15.8	17.2	17.7	19.8	21.1	20.2	21.6	22.1
	4H	15.7	17.0	16.2	17.5	18.0	20.8	22.1	21.3	22.6	23.1
	6H	15.9	17.1	16.4	17.6	18.1	21.8	23.0	22.3	23.5	24.1
	8H	15.9	17.0	16.4	17.6	18.1	22.4	23.5	22.9	24.0	24.6
	12H	15.9	17.0	16.4	17.5	18.1	22.9	24.0	23.5	24.5	25.1

UGR Viewed Endwise

4H	2H	15.2	16.5	15.7	17.0	17.5	17.9	19.2	18.4	19.6	20.2
	3H	16.7	17.8	17.2	18.3	18.8	20.3	21.4	20.8	21.9	22.5
	4H	17.1	18.1	17.7	18.7	19.3	21.5	22.5	22.0	23.0	23.6
	6H	17.4	18.3	18.0	18.8	19.5	22.7	23.6	23.3	24.2	24.8
	8H	17.5	18.3	18.0	18.9	19.5	23.3	24.2	23.9	24.7	25.3
	12H	17.5	18.2	18.1	18.8	19.5	24.0	24.8	24.6	25.4	26.0

8H	4H	17.9	18.7	18.5	19.3	19.9	21.6	22.5	22.2	23.0	23.7
	6H	18.4	19.1	19.0	19.7	20.3	23.0	23.7	23.6	24.3	24.9
	8H	18.5	19.1	19.1	19.8	20.4	23.8	24.4	24.4	25.0	25.7
	12H	18.6	19.2	19.2	19.8	20.5	24.6	25.2	25.2	25.8	26.5

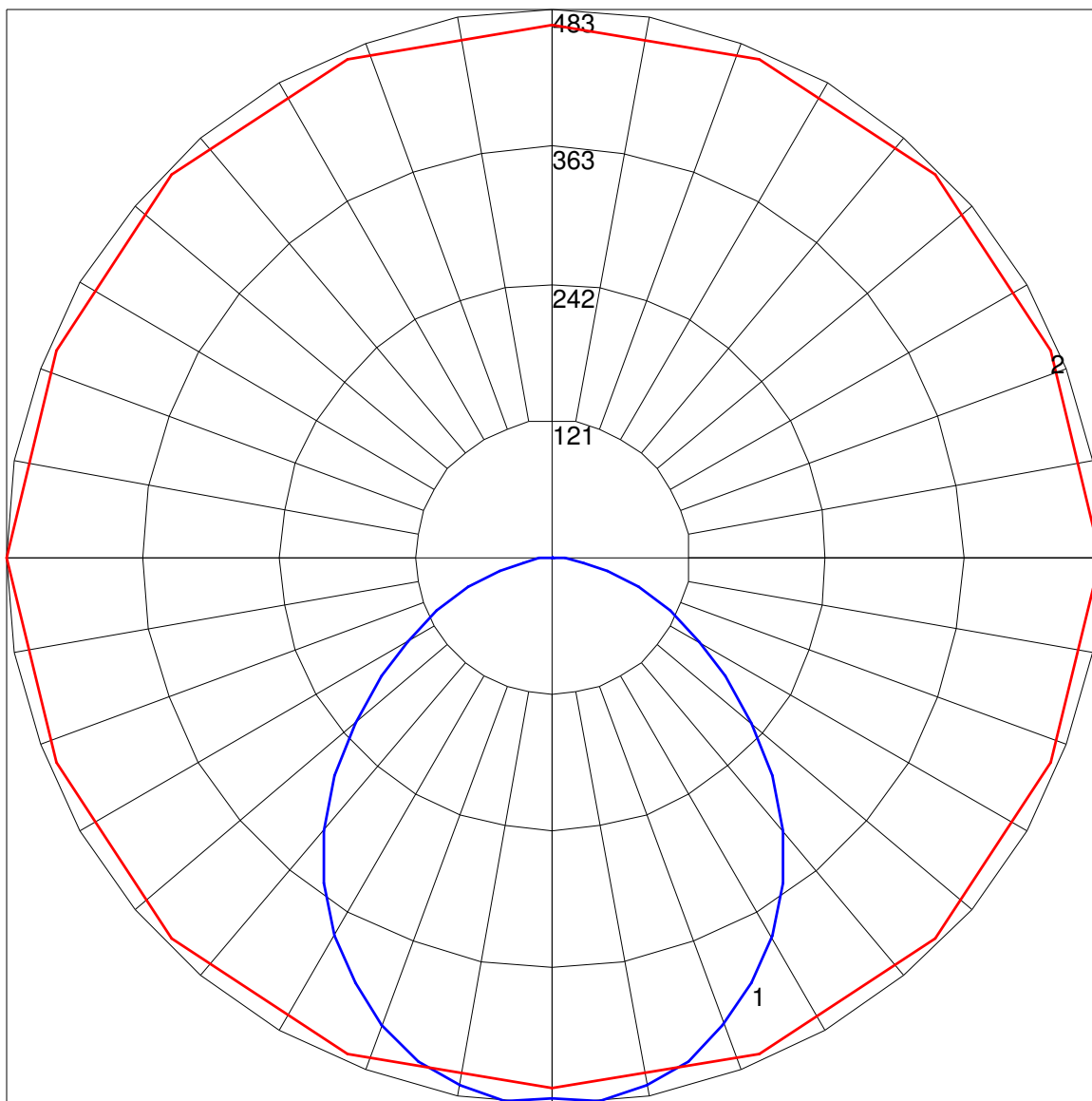
12H	4H	18.1	18.8	18.7	19.4	20.1	21.6	22.4	22.2	23.0	23.6
	6H	18.7	19.3	19.3	19.9	20.6	23.1	23.7	23.7	24.3	24.9
	8H	18.9	19.5	19.5	20.1	20.8	23.8	24.4	24.5	25.0	25.7

Maximum UGR = 26.5

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POLAR GRAPH



Maximum Candela = 483.439 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.)