

IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-12-L20-835-AF-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 20224.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUE DATE] 9 JAN, 2024
[MANUFAC] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1x2' RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CENTER LENS
[MORE] 0-10V DIMMING DRIVER
[LUMCAT] LT-12-L20-835-AF-DIM-UNV_
[LAMPCAT] 22 INCH LED ARRAY
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] INDOOR
[_SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2011
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	17.42
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	0.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3902	4024	4250
55	3586	3930	4252
65	3124	3841	4069
75	2361	3427	3598
85	1018	1668	1413

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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	699.490	699.490	699.490	699.490	699.490
5	710.363	697.074	693.449	691.436	689.825
10	698.282	686.201	684.187	682.979	680.966
15	681.771	671.704	669.690	671.704	668.885
20	654.790	646.334	646.334	649.958	649.958
25	623.782	617.339	620.561	626.601	627.004
30	588.747	582.304	589.150	598.815	598.815
35	549.283	544.450	551.699	566.196	567.404
40	502.972	502.167	510.221	527.940	531.967
45	451.024	451.829	465.119	486.462	491.294
50	395.049	399.478	418.003	439.346	446.997
55	336.255	347.530	368.471	388.606	398.673
60	277.863	295.179	318.938	335.449	344.711
65	215.847	235.580	265.379	276.655	281.085
70	159.469	183.229	208.196	214.236	220.277
75	99.870	130.475	144.972	143.764	152.221
80	51.948	74.902	82.554	76.916	82.554
85	14.497	25.773	23.759	20.135	20.135
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	255.49	N.A.	12.70
0-30	542.39	N.A.	27.00
0-40	889.63	N.A.	44.20
0-60	1580.26	N.A.	78.60
0-80	1978.83	N.A.	98.40
0-90	2011.18	N.A.	100.00
10-90	1945.09	N.A.	96.70
20-40	634.14	N.A.	31.50
20-50	995.62	N.A.	49.50
40-70	944.93	N.A.	47.00
60-80	398.57	N.A.	19.80
70-80	144.27	N.A.	7.20
80-90	32.35	N.A.	1.60
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2011.18	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	66.09
10-20	189.40
20-30	286.90
30-40	347.24
40-50	361.48
50-60	329.15
60-70	254.30
70-80	144.27
80-90	32.35
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
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	85	85	85	85	83	83	83	83	79	79	79	76	76	76	73	73	73	71
1	78	74	71	68	76	73	70	67	70	67	65	67	65	63	64	63	61	60
2	71	65	60	56	69	63	59	55	61	57	54	58	55	52	56	54	51	50
3	64	57	51	46	62	56	50	46	53	49	45	51	47	44	50	46	43	42
4	59	50	44	39	57	49	43	39	47	42	38	46	41	38	44	40	37	36
5	54	45	38	33	52	44	38	33	42	37	33	41	36	33	40	35	32	31
6	50	40	34	29	48	40	33	29	38	33	29	37	32	28	36	32	28	27
7	46	36	30	26	45	36	30	26	35	29	25	34	29	25	33	28	25	24
8	43	33	27	23	42	33	27	23	32	26	23	31	26	23	30	26	22	21
9	40	30	25	21	39	30	24	21	29	24	20	28	24	20	28	23	20	19
10	38	28	22	19	37	28	22	19	27	22	19	26	22	18	26	21	18	17

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UGR TABLE - CORRECTED

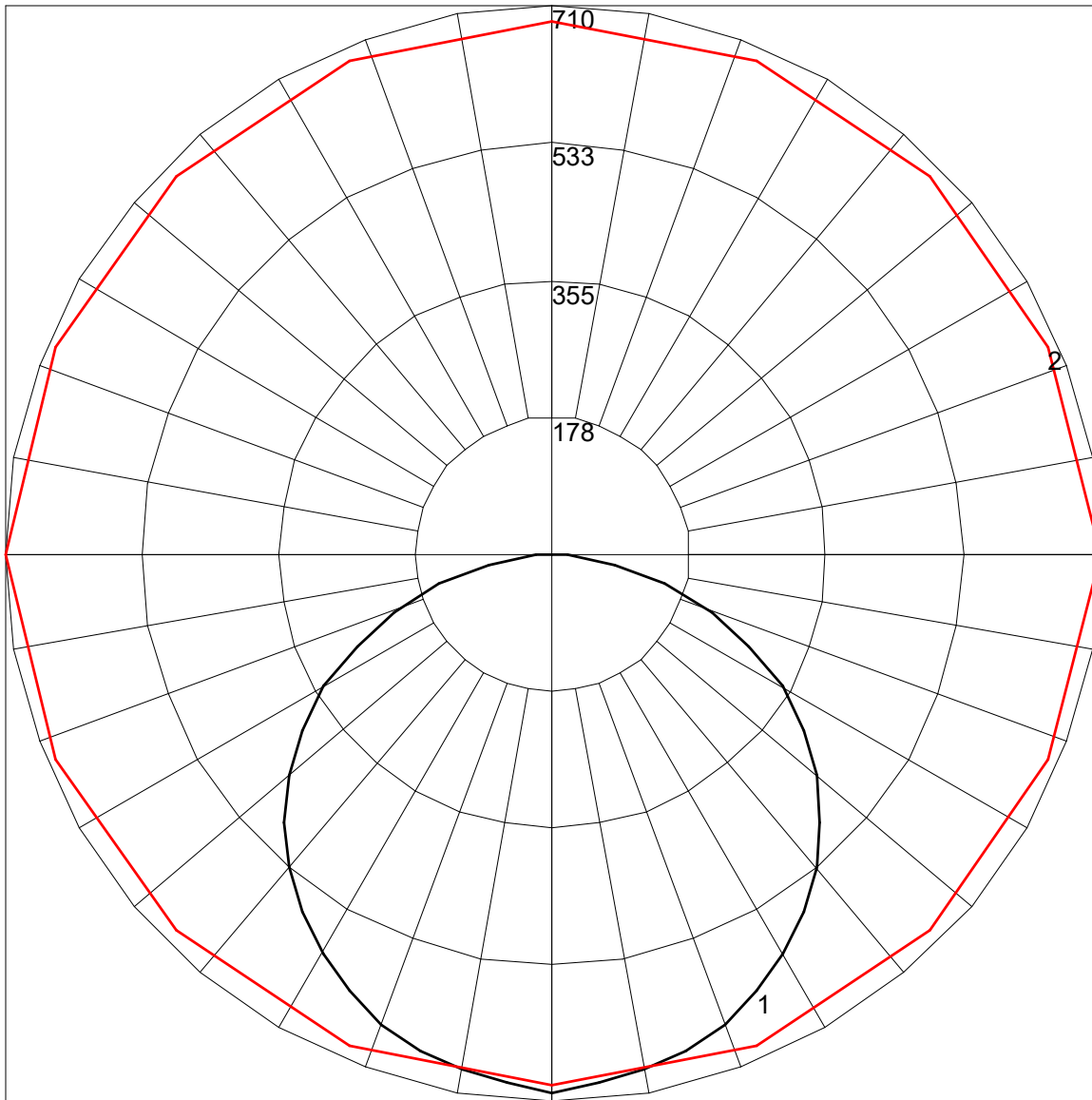
Reflectances

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	15.2	16.8	15.5	17.1	17.5	16.1	17.8	16.5	18.1	18.4
	3H	16.8	18.3	17.2	18.7	19.0	18.0	19.5	18.4	19.9	20.2
	4H	17.4	18.8	17.8	19.1	19.5	18.7	20.1	19.1	20.5	20.9
	6H	17.7	19.0	18.1	19.4	19.8	19.2	20.5	19.6	20.9	21.2
	8H	17.8	19.0	18.2	19.4	19.8	19.3	20.5	19.7	20.9	21.3
	12H	17.8	19.0	18.3	19.4	19.8	19.3	20.5	19.8	20.9	21.3
4H	2H	16.0	17.4	16.4	17.8	18.1	16.7	18.1	17.1	18.5	18.8
	3H	17.9	19.1	18.3	19.5	19.9	18.9	20.0	19.3	20.4	20.8
	4H	18.6	19.7	19.1	20.1	20.5	19.7	20.7	20.1	21.2	21.6
	6H	19.1	20.0	19.5	20.4	20.9	20.2	21.2	20.7	21.6	22.1
	8H	19.2	20.1	19.6	20.5	21.0	20.4	21.2	20.8	21.7	22.2
	12H	19.2	20.0	19.7	20.5	21.0	20.4	21.2	20.9	21.7	22.2
8H	4H	19.0	19.9	19.5	20.3	20.8	20.0	20.8	20.4	21.3	21.7
	6H	19.6	20.4	20.1	20.8	21.3	20.6	21.3	21.1	21.8	22.3
	8H	19.8	20.5	20.3	21.0	21.5	20.8	21.5	21.3	22.0	22.4
	12H	19.9	20.5	20.4	21.0	21.5	20.9	21.5	21.4	22.0	22.5
12H	4H	19.1	19.9	19.5	20.3	20.8	20.0	20.8	20.5	21.2	21.7
	6H	19.7	20.4	20.2	20.8	21.4	20.7	21.3	21.2	21.8	22.3
	8H	19.9	20.5	20.4	21.0	21.6	20.9	21.5	21.4	21.9	22.5

Maximum UGR = 22.5

POLAR GRAPH



Maximum Candela = 710.363 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.)