



IES INDOOR REPORT

PHOTOMETRIC FILENAME : TEMPESTALEM-CEILING(1990LM).IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TESTLAB] Lumentra, Inc.
 [MORE] 160 Frobisher Drive, Unit 5
 [MORE] Waterloo, Ontario
 [ISSUEDATE] 10-01-2021
 [MANUFAC] BELUCE CANADA INC.
 [MORE] MARKHAM, ONTARIO
 [LUMCAT] TA-LED-EM-120-347V-S (ON BATTERY)
 [LUMINAIRE] BELUCE TEMPESTRA LED LUMINAIRE
 [MORE] WITH SPECULAR INTERIOR AND TRANSLUCENT PRISMATIC LENS
 [LAMP] TWO LED BOARDS (40 LEDS EACH). LUMEN OUTPUT = 1990 LMS.
 [OTHER] CUSTOM BELUCE LED CHARGER (ON BATTERY POWER)
 [OTHER] ABSOLUTE PHOTOMETRY

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1990
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	15.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	1.21 ft
Luminous Width (90-270)	0.42 ft
Luminous Height	0.08 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	10021	10107	11035
55	8832	9640	10992
65	7411	9011	11056
75	5640	8629	11708
85	2904	8925	13832

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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>
0.0	608	608	608	608	608
2.5	607	607	608	609	609
5.0	606	605	607	608	607
7.5	603	603	603	602	600
10.0	598	598	595	592	591
12.5	591	590	585	581	580
15.0	581	579	572	570	569
17.5	570	567	560	559	557
20.0	557	553	547	546	546
22.5	543	538	534	535	535
25.0	527	521	519	523	524
27.5	508	503	503	509	512
30.0	489	484	487	497	503
32.5	469	466	472	488	494
35.0	448	446	456	477	484
37.5	425	425	440	466	474
40.0	402	405	427	455	463
42.5	380	385	413	443	452
45.0	357	364	399	430	439
47.5	333	343	382	415	425
50.0	310	322	366	400	411
52.5	286	301	347	384	395
55.0	262	280	329	367	379
57.5	239	260	311	350	362
60.0	216	240	292	332	346
62.5	192	218	271	314	329
65.0	169	197	250	296	311
67.5	147	176	231	279	295
70.0	126	156	213	262	278
72.5	106	136	194	244	261
75.0	86	117	177	228	245
77.5	67	100	160	212	229
80.0	50	84	145	195	212
82.5	34	70	129	179	198
85.0	21	57	113	162	181
87.5	12	44	97	143	162
90.0	8	31	80	124	143
92.5	8	22	66	106	124
95.0	8	17	54	89	106
97.5	7	14	44	76	91
100.0	7	11	35	64	78
102.5	6	8	29	53	64
105.0	6	6	24	44	53
107.5	5	4	19	37	44
110.0	4	3	15	30	37
112.5	3	2	10	25	30
115.0	3	2	6	19	25
117.5	2	1	2	14	19
120.0	1	1	1	9	13
122.5	1	0	0	5	8
125.0	0	0	0	2	4
127.5	0	0	0	0	1
130.0	0	0	0	0	0
132.5	0	0	0	0	0

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CANDELA TABULATION - (Cont.)

135.0	0	0	0	0	0
137.5	0	0	0	0	0
140.0	0	0	0	0	0
142.5	0	0	0	0	0
145.0	0	0	0	0	0
147.5	0	0	0	0	0
150.0	0	0	0	0	0
152.5	0	0	0	0	0
155.0	0	0	0	0	0
157.5	0	0	0	0	0
160.0	0	0	0	0	0
162.5	0	0	0	0	0
165.0	0	0	0	0	0
167.5	0	0	0	0	0
170.0	0	0	0	0	0
172.5	0	0	0	0	0
175.0	0	0	0	0	0
177.5	0	0	0	0	0
180.0	0	0	0	0	0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	219.43	N.A.	11.00
0-30	459.90	N.A.	23.10
0-40	748.69	N.A.	37.60
0-60	1345.59	N.A.	67.60
0-80	1771.84	N.A.	89.00
0-90	1889.78	N.A.	94.90
10-90	1832.26	N.A.	92.10
20-40	529.26	N.A.	26.60
20-50	835.95	N.A.	42.00
40-70	840.99	N.A.	42.30
60-80	426.25	N.A.	21.40
70-80	182.16	N.A.	9.20
80-90	117.94	N.A.	5.90
90-110	88.92	N.A.	4.50
90-120	99.26	N.A.	5.00
90-130	100.58	N.A.	5.10
90-150	100.58	N.A.	5.10
90-180	100.58	N.A.	5.10
110-180	11.66	N.A.	0.60
0-180	1990.37	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	57.53
10-20	161.90
20-30	240.47
30-40	288.79
40-50	306.69
50-60	290.21
60-70	244.09
70-80	182.16
80-90	117.94
90-100	60.84
100-110	28.08
110-120	10.33
120-130	1.33
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

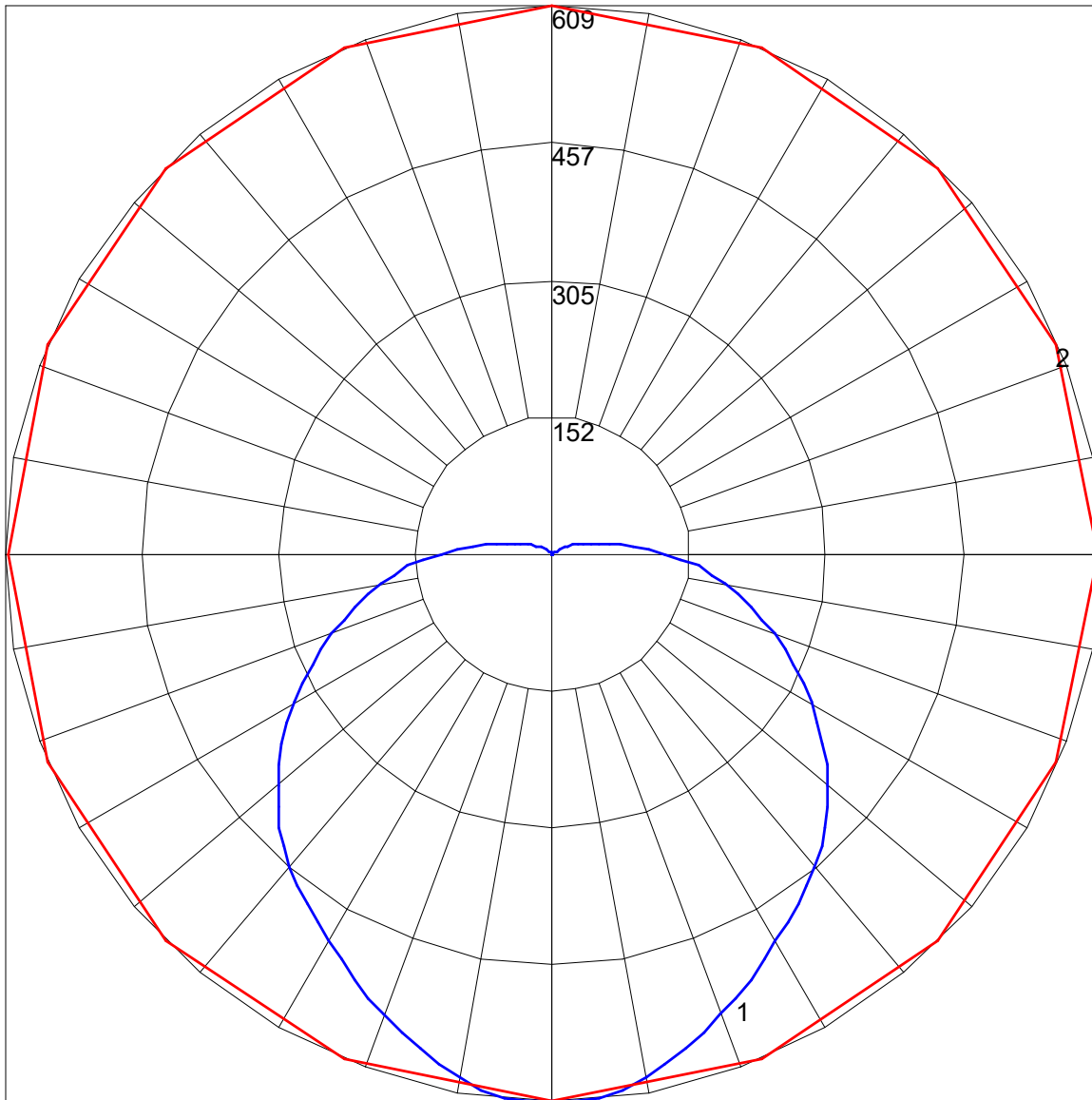
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	118	118	118	118	115	115	115	115	108	108	108	103	103	103	97	97	97	95
1	106	100	95	90	102	97	92	88	92	88	85	87	84	81	82	80	78	75
2	95	86	78	72	92	84	77	71	79	73	68	75	70	66	71	67	64	61
3	86	75	66	59	83	73	65	58	69	62	57	66	60	55	62	58	53	51
4	79	66	57	50	76	64	56	49	61	54	48	58	52	47	55	50	45	43
5	72	59	49	43	70	57	49	42	55	47	41	52	45	40	50	44	39	37
6	67	53	44	37	65	52	43	37	49	42	36	47	40	35	45	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	34	29	41	34	28	39	33	28	38	32	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	30	25	35	29	25	23
10	50	37	29	24	49	36	29	23	35	28	23	34	27	23	32	27	22	20

POLAR GRAPH



Maximum Candela = 609 Located At Horizontal Angle = 67.5, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (67.5 - 247.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)