

IES INDOOR REPORT

PHOTOMETRIC FILENAME : FSN MROR 14 BOWL.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] LLI-18210-3

[TESTLAB] LightLab International (www.LightLabInternational.com)

[MANUFAC] Justice Design Group, Los Angeles, CA 90071

[LUMCAT] Artisan Glass (FSN) - Mercury Glass (MROR) 14" Bowl

[LUMINAIRE] Justice Design Group - Pendant mount luminaire. Product ID: FSN MROR 14" Bowl

[MORE] Extruded base plate with frosted glass bowl lens.

[MORE] 42 LEDs with 21 in each of two arrays with white plastic lenses.

[MORE] No driver.

[MORE] Operating at 120 VAC and 60 Hz.

[OTHER] Absolute test - lamp lumens value set to -1

[MORE] NA conventions used for C0 plane alignment and C-plane rotation direction.

[MORE] The sample was tested at a distance of 8m.

[MORE] This IES file created by LightLab/LSA Report program version 3.820a.

[DATE] This file created: Monday, August 6, 2018 2:20:59 PM

[ISSUEDATE] Monday, August 6, 2018 2:20:59 PM

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1130
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	50
Total Luminaire Watts	22.7
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Circular w/ Sides
Luminous Length (0-180)	0.36 m (Diameter)
Luminous Width (90-270)	0.36 m (Diameter)
Luminous Height	0.10 m

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LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1250	1250	1250
55	1125	1125	1125
65	995	995	995
75	866	866	866
85	757	757	757

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CANDELA TABULATION

	<u>0</u>
0.0	176.063
0.5	176.055
1.0	176.038
1.5	175.996
2.0	175.938
2.5	175.855
3.0	175.780
3.5	175.680
4.0	175.555
4.5	175.438
5.0	175.288
5.5	175.138
6.0	174.938
6.5	174.755
7.0	174.538
7.5	174.314
8.0	174.072
8.5	173.814
9.0	173.539
9.5	173.264
10.0	172.964
10.5	172.673
11.0	172.348
11.5	171.990
12.0	171.640
12.5	171.273
13.0	170.882
13.5	170.482
14.0	170.074
14.5	169.640
15.0	169.199
15.5	168.741
16.0	168.249
16.5	167.758
17.0	167.258
17.5	166.742
18.0	166.192
18.5	165.667
19.0	165.084
19.5	164.509
20.0	163.926
20.5	163.318
21.0	162.702
21.5	162.060
22.0	161.419
22.5	160.752
23.0	160.094
23.5	159.395
24.0	158.687
24.5	157.987
25.0	157.279
25.5	156.529
26.0	155.771
26.5	155.030

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CANDELA TABULATION - (Cont.)

27.0	154.238
27.5	153.480
28.0	152.681
28.5	151.873
29.0	151.065
29.5	150.240
30.0	149.407
30.5	148.541
31.0	147.691
31.5	146.808
32.0	145.958
32.5	145.059
33.0	144.151
33.5	143.251
34.0	142.335
34.5	141.402
35.0	140.452
35.5	139.511
36.0	138.561
36.5	137.603
37.0	136.637
37.5	135.654
38.0	134.679
38.5	133.672
39.0	132.680
39.5	131.672
40.0	130.648
40.5	129.615
41.0	128.615
41.5	127.557
42.0	126.499
42.5	125.458
43.0	124.400
43.5	123.342
44.0	122.259
44.5	121.193
45.0	120.119
45.5	119.052
46.0	117.978
46.5	116.870
47.0	115.779
47.5	114.662
48.0	113.580
48.5	112.447
49.0	111.347
49.5	110.214
50.0	109.148
50.5	108.007
51.0	106.866
51.5	105.749
52.0	104.591
52.5	103.475
53.0	102.317
53.5	101.185
54.0	100.027
54.5	98.910

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CANDELA TABULATION - (Cont.)

55.0	97.753
55.5	96.603
56.0	95.453
56.5	94.287
57.0	93.129
57.5	91.972
58.0	90.814
58.5	89.647
59.0	88.540
59.5	87.365
60.0	86.199
60.5	85.058
61.0	83.883
61.5	82.717
62.0	81.551
62.5	80.409
63.0	79.235
63.5	78.119
64.0	76.953
64.5	75.811
65.0	74.670
65.5	73.504
66.0	72.388
66.5	71.255
67.0	70.114
67.5	68.981
68.0	67.890
68.5	66.757
69.0	65.649
69.5	64.549
70.0	63.433
70.5	62.342
71.0	61.234
71.5	60.143
72.0	59.051
72.5	58.010
73.0	56.919
73.5	55.869
74.0	54.820
74.5	53.753
75.0	52.737
75.5	51.696
76.0	50.671
76.5	49.647
77.0	48.664
77.5	47.656
78.0	46.656
78.5	45.690
79.0	44.715
79.5	43.757
80.0	42.808
80.5	41.875
81.0	40.942
81.5	40.042
82.0	39.126
82.5	38.243

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CANDELA TABULATION - (Cont.)

83.0	37.385
83.5	36.494
84.0	35.661
84.5	34.803
85.0	33.986
85.5	33.170
86.0	32.395
86.5	31.596
87.0	30.829
87.5	30.080
88.0	29.322
88.5	28.622
89.0	27.906
89.5	27.231
90.0	26.664
90.5	26.215
91.0	25.848
91.5	25.531
92.0	25.273
92.5	24.998
93.0	24.773
93.5	24.565
94.0	24.374
94.5	24.240
95.0	24.265
95.5	24.515
96.0	25.048
96.5	25.848
97.0	26.848
97.5	28.030
98.0	29.180
98.5	30.288
99.0	31.454
99.5	32.537
100.0	33.653
100.5	34.869
101.0	36.119
101.5	37.452
102.0	38.759
102.5	40.109
103.0	41.383
103.5	42.683
104.0	43.932
104.5	45.207
105.0	46.481
105.5	47.739
106.0	49.014
106.5	50.272
107.0	51.546
107.5	52.771
108.0	54.045
108.5	55.253
109.0	56.486
109.5	57.694
110.0	58.918
110.5	60.168

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CANDELA TABULATION - (Cont.)

111.0	61.450
111.5	62.767
112.0	64.066
112.5	65.449
113.0	66.790
113.5	68.214
114.0	69.689
114.5	71.172
115.0	72.696
115.5	74.220
116.0	75.786
116.5	77.352
117.0	79.010
117.5	80.609
118.0	82.259
118.5	83.958
119.0	85.657
119.5	87.365
120.0	89.064
120.5	90.805
121.0	92.521
121.5	94.279
122.0	95.987
122.5	97.744
123.0	99.477
123.5	101.168
124.0	102.884
124.5	104.575
125.0	106.249
125.5	107.874
126.0	109.481
126.5	111.006
127.0	112.530
127.5	114.038
128.0	115.495
128.5	116.895
129.0	118.303
129.5	119.652
130.0	120.960
130.5	122.226
131.0	123.417
131.5	124.633
132.0	125.791
132.5	126.883
133.0	127.957
133.5	128.973
134.0	129.973
134.5	130.923
135.0	131.814
135.5	132.680
136.0	133.497
136.5	134.305
137.0	135.054
137.5	135.771
138.0	136.454
138.5	137.128

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CANDELA TABULATION - (Cont.)

139.0	137.737
139.5	138.303
140.0	138.878
140.5	139.378
141.0	139.877
141.5	140.336
142.0	140.760
142.5	141.185
143.0	141.560
143.5	141.918
144.0	142.285
144.5	142.585
145.0	142.901
145.5	143.159
146.0	143.451
146.5	143.701
147.0	143.942
147.5	144.159
148.0	144.367
148.5	144.575
149.0	144.800
149.5	145.009
150.0	145.209
150.5	145.408
151.0	145.625
151.5	145.817
152.0	146.025
152.5	146.233
153.0	146.425
153.5	146.600
154.0	146.783
154.5	146.958
155.0	147.116
155.5	147.299
156.0	147.474
156.5	147.649
157.0	147.824
157.5	147.974
158.0	148.166
158.5	148.332
159.0	148.507
159.5	148.699
160.0	148.882
160.5	149.074
161.0	149.249
161.5	149.424
162.0	149.598
162.5	149.807
163.0	149.990
163.5	150.215
164.0	150.448
164.5	150.565
165.0	150.540
165.5	150.398
166.0	150.032
166.5	149.407

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CANDELA TABULATION - (Cont.)

167.0	148.616
167.5	147.466
168.0	146.100
168.5	144.609
169.0	142.826
169.5	140.885
170.0	138.778
170.5	136.520
171.0	134.096
171.5	131.689
172.0	129.148
172.5	126.574
173.0	123.967
173.5	121.127
174.0	118.028
174.5	114.546
175.0	110.856
175.5	106.766
176.0	102.434
176.5	97.536
177.0	92.038
177.5	86.274
178.0	79.560
178.5	72.246
179.0	64.899
179.5	58.177
180.0	52.587

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	64.41	N.A.	5.70
0-30	136.90	N.A.	12.10
0-40	224.80	N.A.	19.90
0-60	404.99	N.A.	35.90
0-80	534.83	N.A.	47.30
0-90	572.15	N.A.	50.60
10-90	555.49	N.A.	49.20
20-40	160.39	N.A.	14.20
20-50	253.12	N.A.	22.40
40-70	254.20	N.A.	22.50
60-80	129.84	N.A.	11.50
70-80	55.83	N.A.	4.90
80-90	37.32	N.A.	3.30
90-110	78.11	N.A.	6.90
90-120	150.50	N.A.	13.30
90-130	245.12	N.A.	21.70
90-150	436.01	N.A.	38.60
90-180	557.53	N.A.	49.40
110-180	479.42	N.A.	42.40
0-180	1129.68	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	16.66
10-20	47.75
20-30	72.49
30-40	87.90
40-50	92.73
50-60	87.46
60-70	74.01
70-80	55.83
80-90	37.32
90-100	29.12
100-110	48.99
110-120	72.39
120-130	94.62
130-140	101.39
140-150	89.50
150-160	68.03
160-170	42.11
170-180	11.38

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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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51	51
1	97	92	87	83	89	85	81	77	71	69	66	59	57	55	48	47	45	40	40
2	87	79	73	67	80	73	67	62	62	57	54	51	48	45	42	39	37	32	32
3	79	69	61	55	73	64	57	52	54	49	44	45	41	38	36	34	31	27	27
4	72	61	53	46	66	56	49	43	48	42	38	40	35	32	32	29	26	23	23
5	66	54	46	39	61	50	43	37	43	37	32	36	31	27	29	26	23	20	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17	17
7	56	44	35	30	52	41	33	28	35	29	24	29	24	21	24	20	18	15	15
8	52	40	32	26	48	37	30	25	32	26	22	27	22	19	22	18	16	13	13
9	49	36	28	23	45	34	27	22	29	23	19	24	20	17	20	17	14	12	12
10	45	33	26	21	42	31	24	20	27	21	17	23	18	15	19	15	13	11	11

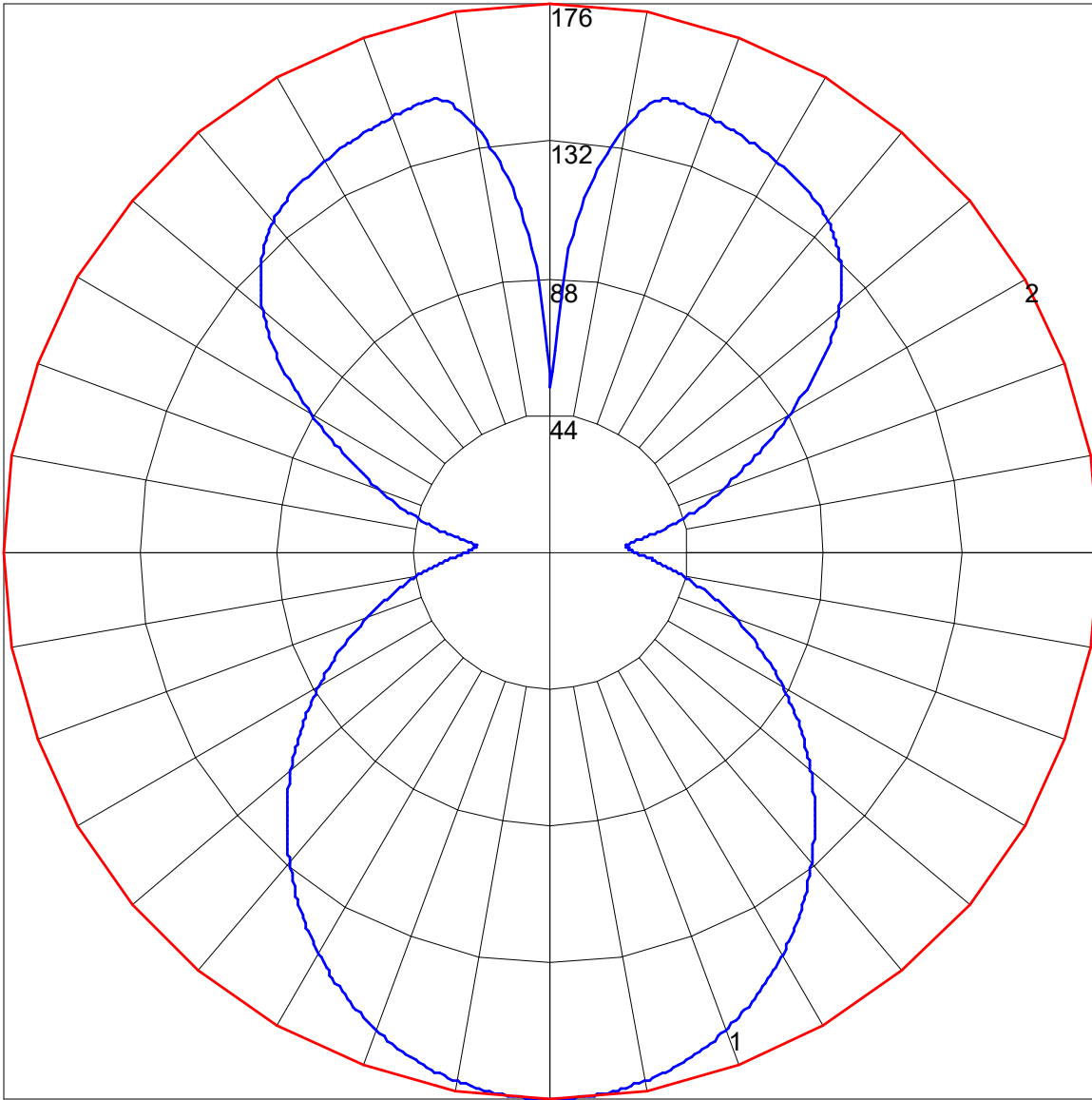
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UGR TABLE - CORRECTED

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	7.8	8.7	8.7	9.6	10.9	7.8	8.7	8.7	9.6	10.9
	3H	9.7	10.6	10.7	11.5	12.8	9.7	10.6	10.7	11.5	12.8
	4H	10.6	11.4	11.6	12.4	13.6	10.6	11.4	11.6	12.4	13.6
	6H	11.4	12.1	12.3	13.1	14.4	11.4	12.1	12.3	13.1	14.4
	8H	11.7	12.4	12.7	13.4	14.7	11.7	12.4	12.7	13.4	14.7
	12H	12.0	12.7	13.0	13.7	15.0	12.0	12.7	13.0	13.7	15.0
4H	2H	8.3	9.1	9.3	10.1	11.4	8.3	9.1	9.3	10.1	11.4
	3H	10.5	11.2	11.5	12.2	13.5	10.5	11.2	11.5	12.2	13.5
	4H	11.5	12.1	12.5	13.1	14.4	11.5	12.1	12.5	13.1	14.4
	6H	12.4	13.0	13.4	14.0	15.3	12.4	13.0	13.4	14.0	15.3
	8H	12.9	13.4	13.9	14.4	15.7	12.9	13.4	13.9	14.4	15.7
	12H	13.3	13.7	14.3	14.7	16.1	13.3	13.7	14.3	14.7	16.1
8H	4H	11.8	12.3	12.8	13.3	14.7	11.8	12.3	12.8	13.3	14.7
	6H	12.9	13.4	14.0	14.4	15.7	12.9	13.4	14.0	14.4	15.7
	8H	13.5	13.9	14.5	14.9	16.2	13.5	13.9	14.5	14.9	16.2
	12H	14.0	14.4	15.0	15.4	16.8	14.0	14.4	15.0	15.4	16.8
12H	4H	11.9	12.3	12.9	13.3	14.7	11.9	12.3	12.9	13.3	14.7
	6H	13.0	13.4	14.1	14.4	15.8	13.0	13.4	14.1	14.4	15.8
	8H	13.6	14.0	14.7	15.0	16.4	13.6	14.0	14.7	15.0	16.4

Maximum UGR = 16.8

POLAR GRAPH



Maximum Candela = 176.063 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)