

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: 102P116

Luminaire Tested: **IAF-232**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 102P116
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: IAF-232
Description: IAF Series Industrial Luminaire
Light Source: TWO - FO32/35K - 2800 Lumens ea. - 32 Watts ea.
Ballast/Driver: Motorola M2-RN-T8-1LL-120 Electronic - L.O.B.F. = 84.73

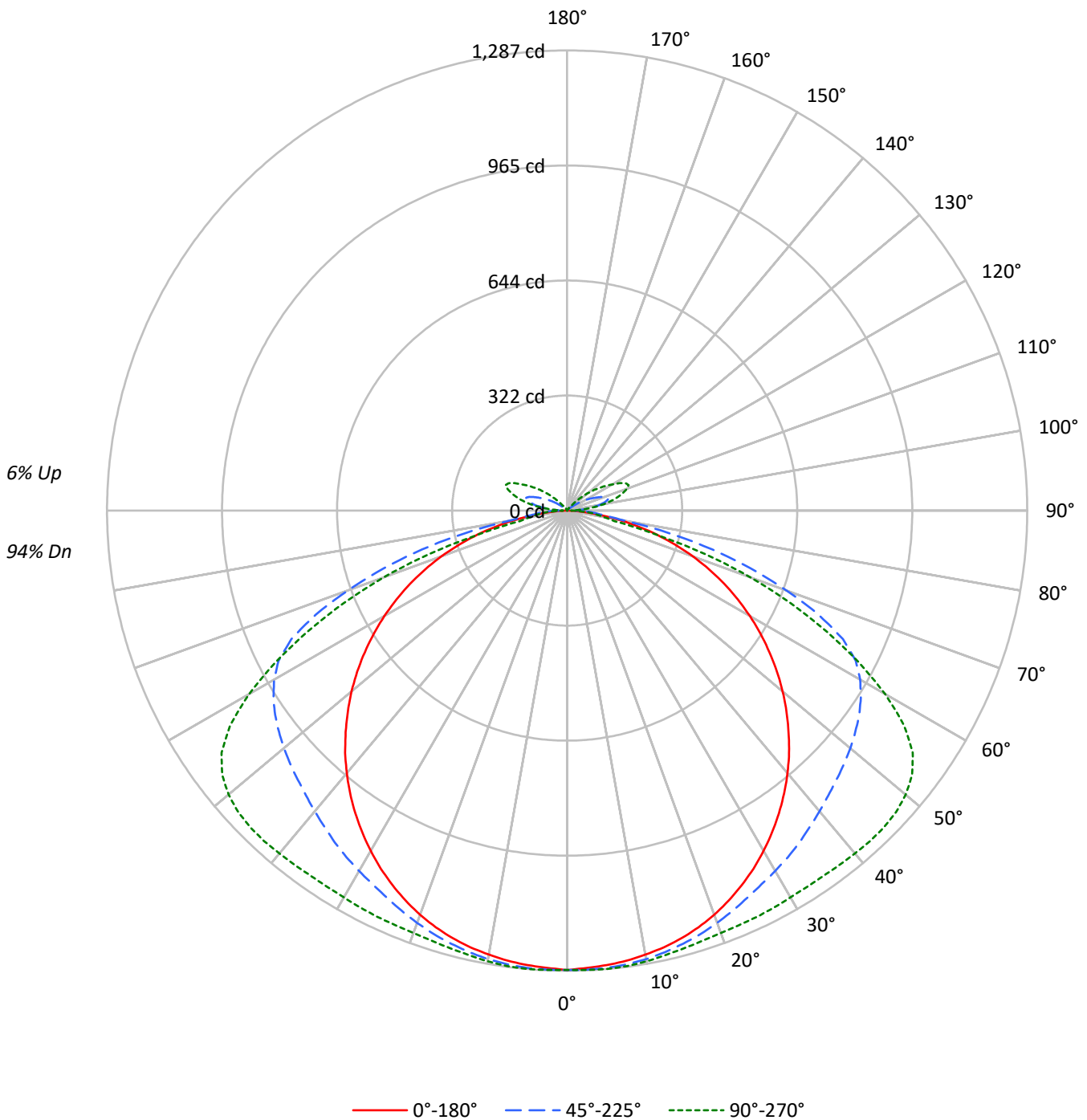
Summary

Lumens per Lamp: 2800 (2 lamps)
Luminaire Lumens: 4897.6 lumens
Efficiency: 87.5%
Efficacy: 83.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.49 / 1.56
Luminous Opening: Rectangular w/ Sides (W: 0.93' x L: 3.99' x H: 0.22')
CIE Type: Direct

Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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
RCR																		
0	103	103	103	103	100	100	100	100	94	94	94	89	89	89	85	85	85	82
1	93	89	85	81	90	86	83	80	82	79	76	77	75	73	74	72	70	68
2	84	77	70	65	81	74	69	64	70	66	61	67	63	59	63	60	57	55
3	76	66	59	53	73	65	58	52	61	55	50	58	53	49	55	51	47	45
4	69	58	50	44	67	57	49	43	54	47	42	51	46	41	49	44	40	38
5	63	52	43	37	61	50	43	37	48	41	36	46	40	35	43	38	34	32
6	58	46	38	32	56	45	37	32	43	36	31	41	35	30	39	34	30	28
7	54	41	34	28	52	41	33	28	39	32	27	37	31	27	35	30	26	24
8	50	38	30	25	48	37	30	24	35	29	24	34	28	24	32	27	23	21
9	46	34	27	22	45	34	27	22	32	26	21	31	25	21	30	24	21	19
10	43	32	24	20	42	31	24	20	30	24	19	29	23	19	27	22	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3727	3727	3727
5°	3698	3673	3672
10°	3679	3621	3619
15°	3664	3569	3578
20°	3641	3523	3573
25°	3607	3486	3615
30°	3568	3484	3681
35°	3522	3506	3791
40°	3471	3544	3956
45°	3406	3622	4157
50°	3333	3746	4351
55°	3240	3895	4461
60°	3125	4044	4231
65°	2977	4050	3648
70°	2755	3535	2807
75°	2407	2660	1494
80°	1845	1255	721
85°	919	773	566



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	122.2	2.5	2.2	0°	1285	1285	1285	1285	1285	
10°-20°	354.6	7.2	6.3	5°	1276	1279	1284	1289	1287	121
20°-30°	554.9	11.3	9.9	15°	1238	1246	1254	1266	1267	349
30°-40°	712.5	14.5	12.7	25°	1156	1166	1194	1239	1254	533
40°-50°	821.0	16.8	14.7	35°	1033	1052	1133	1218	1248	646
50°-60°	855.5	17.5	15.3	45°	876	913	1065	1206	1253	676
60°-70°	722.5	14.8	12.9	55°	691	767	997	1146	1180	617
70°-80°	384.1	7.8	6.9	65°	485	631	851	824	801	479
80°-90°	91.7	1.9	1.6	75°	259	482	420	300	251	273
90°-100°	47.9	1.0	0.9	85°	45	107	78	66	63	59
100°-110°	94.7	1.9	1.7	90°	0	36	23	15	12	2
110°-120°	82.1	1.7	1.5	95°	0	43	52	52	52	0
120°-130°	40.6	0.8	0.7	105°	0	36	118	141	147	0
130°-140°	11.7	0.2	0.2	115°	0	5	84	156	181	0
140°-150°	1.7	0.0	0.0	125°	0	0	33	89	111	0
150°-160°	0.1	0.0	0.0	135°	0	0	6	28	43	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	6	8	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	1031.7	21.1	18.4	165°	0	0	0	0	0	0
0°-40°	1744.1	35.6	31.1	175°	0	0	0	0	0	0
0°-60°	3420.6	69.8	61.1	180°	0	0	0	0	0	0
0°-90°	4618.9	94.3	82.5							
90°-120°	224.7	4.6	4.0							
90°-150°	278.6	5.7	5.0							
90°-180°	279.0	5.7	5.0							
0°-180°	4897.6	100.0	87.5							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1285	1285	1285	1285	1285
2.5°	1280	1282	1285	1289	1286
5°	1276	1279	1284	1289	1287
7.5°	1270	1274	1280	1286	1285
10°	1261	1267	1274	1281	1280
12.5°	1251	1258	1265	1274	1273
15°	1238	1246	1254	1266	1267
17.5°	1222	1229	1242	1258	1261
20°	1203	1210	1227	1250	1257
22.5°	1181	1189	1211	1244	1255
25°	1156	1166	1194	1239	1254
27.5°	1129	1141	1178	1234	1252
30°	1099	1113	1164	1229	1249
32.5°	1067	1083	1149	1223	1248
35°	1033	1052	1133	1218	1248
37.5°	997	1019	1115	1215	1250
40°	959	984	1098	1212	1252
42.5°	919	949	1081	1210	1254
45°	876	913	1065	1206	1253
47.5°	832	876	1050	1201	1248
50°	787	840	1034	1189	1236
52.5°	740	803	1016	1172	1216
55°	691	767	997	1146	1180
57.5°	641	730	974	1103	1117
60°	590	695	946	1032	1028
62.5°	538	662	910	935	920
65°	485	631	851	824	801
67.5°	430	601	761	704	676
70°	374	571	653	579	546
72.5°	316	533	538	446	404
75°	259	482	420	300	251
77.5°	201	397	294	163	135
80°	145	300	163	105	101
82.5°	91	203	102	84	82
85°	45	107	78	66	63
87.5°	14	72	51	36	32
90°	0	36	23	15	12
92.5°	0	32	30	25	24
95°	0	43	52	52	52
97.5°	0	51	73	78	79
100°	0	53	92	102	105
102.5°	0	44	107	123	128
105°	0	36	118	141	147
107.5°	0	27	120	156	164
110°	0	18	112	167	178



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0	10	98	167	186
115°	0	5	84	156	181
117.5°	0	2	71	139	166
120°	0	2	58	122	147
122.5°	0	1	46	105	129
125°	0	0	33	89	111
127.5°	0	0	22	73	94
130°	0	0	13	57	76
132.5°	0	0	9	42	59
135°	0	0	6	28	43
137.5°	0	0	4	17	28
140°	0	0	2	12	18
142.5°	0	0	0	8	11
145°	0	0	0	6	8
147.5°	0	0	0	3	6
150°	0	0	0	1	3
152.5°	0	0	0	0	1
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)