

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: ITL44652

Luminaire Tested: **DI-232**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: ITL44652
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: DI-232
Description: FABRICATED METAL STRIP BALLAST HOUSING, WHITE PAINTED FABRICATED METAL REFLECTOR WITH UP-LIGHT APERTURES, OPEN ENDS AND BOTTOM.
Light Source: TWO 32-WATT F32T8-SPX35 FLUORESCENTS.
Ballast/Driver: MAGNETEK TRIAD B232I120RH (BALLAST FACTOR 88.1%). BALLAST FACTOR SUPPLIED BY CLIENT.

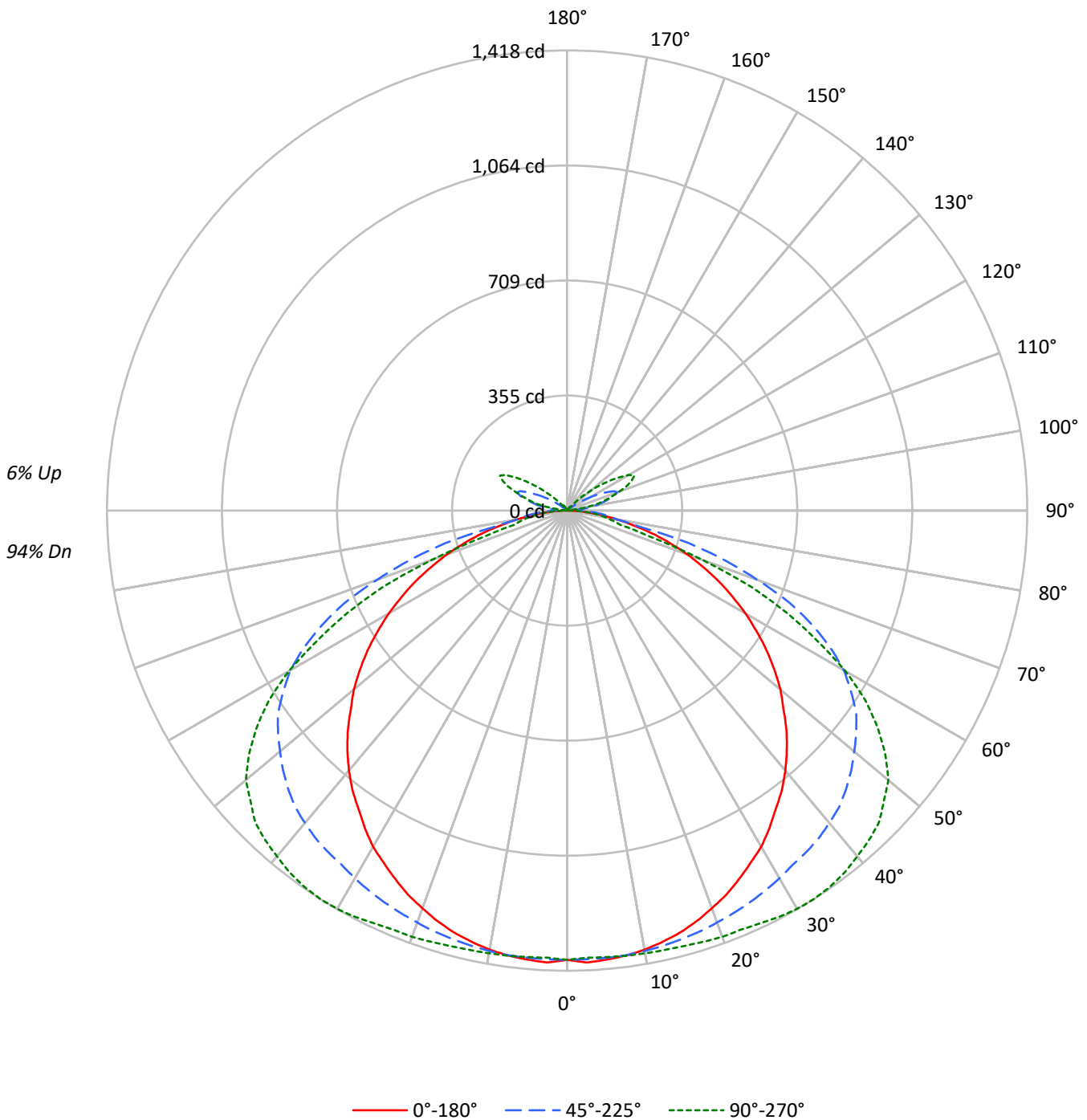
Summary

Lumens per Lamp: 2950 (2 lamps)
Luminaire Lumens: 5306.1 lumens
Efficiency: 89.9%
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.55 / 1.6
Luminous Opening: Rectangular (W 1.09' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 59.6
Input Voltage (V): NR
Input Current (A_{in}): 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

TEST NUMBER: ITL44652
CATALOG NUMBER: DI-232

Luminous Intensity Polar Plot





TEST NUMBER: ITL44652
 CATALOG NUMBER: DI-232

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	106	106	106	106	103	103	103	103	97	97	97	92	92	92	87	87	87	84
1	96	92	88	84	93	89	85	82	84	81	78	80	77	75	76	74	72	70
2	87	79	73	67	84	77	71	66	73	68	64	69	65	61	65	62	59	57
3	79	69	61	55	76	67	60	54	63	57	52	60	55	51	57	53	49	47
4	72	60	52	46	69	59	51	45	56	49	44	53	47	43	50	46	42	39
5	66	54	45	39	63	52	44	38	50	43	38	47	41	37	45	40	36	34
6	60	48	40	34	58	47	39	33	44	38	32	42	36	32	40	35	31	29
7	56	43	35	29	54	42	34	29	40	33	28	38	32	28	37	31	27	25
8	52	39	31	26	50	38	31	26	37	30	25	35	29	25	34	28	24	22
9	48	36	28	23	46	35	28	23	33	27	22	32	26	22	31	25	22	20
10	45	33	26	21	44	32	25	21	31	25	20	30	24	20	28	23	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3405	3405	3405
5°	3430	3415	3411
10°	3432	3442	3460
15°	3428	3482	3538
20°	3414	3537	3660
25°	3401	3616	3811
30°	3398	3716	4025
35°	3367	3859	4247
40°	3359	4037	4467
45°	3326	4227	4728
50°	3284	4421	4945
55°	3217	4667	5014
60°	3124	4847	4876
65°	2998	4849	4354
70°	2827	4489	3179
75°	2576	3679	1616
80°	2196	2182	1700
85°	1807	2738	1863



TEST NUMBER: ITL44652
 CATALOG NUMBER: DI-232

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	131.9	2.5	2.2	0°	1384	1384	1384	1384	1384	
10°-20°	386.9	7.3	6.6	5°	1389	1383	1383	1380	1381	132
20°-30°	615.3	11.6	10.4	15°	1346	1352	1367	1382	1389	380
30°-40°	801.5	15.1	13.6	25°	1253	1282	1332	1381	1404	578
40°-50°	915.9	17.3	15.5	35°	1121	1180	1285	1384	1414	703
50°-60°	919.5	17.3	15.6	45°	956	1055	1215	1325	1359	736
60°-70°	737.8	13.9	12.5	55°	750	912	1088	1173	1169	669
70°-80°	362.8	6.8	6.1	65°	515	737	833	802	748	509
80°-90°	110.1	2.1	1.9	75°	271	486	387	215	170	285
90°-100°	41.6	0.8	0.7	85°	64	138	97	81	66	72
100°-110°	100.2	1.9	1.7	90°	0	53	33	7	3	4
110°-120°	111.4	2.1	1.9	95°	0	67	34	16	9	0
120°-130°	53.9	1.0	0.9	105°	0	58	129	132	119	0
130°-140°	12.1	0.2	0.2	115°	0	9	133	216	220	0
140°-150°	4.0	0.1	0.1	125°	0	4	38	111	160	0
150°-160°	0.9	0.0	0.0	135°	0	2	15	14	42	0
160°-170°	0.1	0.0	0.0	145°	0	0	4	15	18	0
170°-180°	0.0	0.0	0.0	155°	0	0	2	3	5	0
0°-30°	1134.1	21.4	19.2	165°	0	0	0	0	1	0
0°-40°	1935.6	36.5	32.8	175°	0	0	0	0	0	0
0°-60°	3771.1	71.1	63.9	180°	0	0	0	0	0	0
0°-90°	4981.8	93.9	84.4							
90°-120°	253.2	4.8	4.3							
90°-150°	323.3	6.1	5.5							
90°-180°	324.0	6.1	5.5							
0°-180°	5306.1	100.0	89.9							



TEST NUMBER: ITL44652
 CATALOG NUMBER: DI-232

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1384	1384	1384	1384	1384
2.5°	1394	1385	1384	1379	1379
5°	1389	1383	1383	1380	1381
7.5°	1383	1379	1382	1381	1384
10°	1374	1372	1378	1382	1385
12.5°	1361	1363	1373	1381	1387
15°	1346	1352	1367	1382	1389
17.5°	1327	1337	1360	1382	1393
20°	1304	1322	1351	1383	1398
22.5°	1281	1302	1342	1383	1398
25°	1253	1282	1332	1381	1404
27.5°	1224	1258	1321	1383	1412
30°	1196	1234	1308	1386	1417
32.5°	1160	1208	1294	1387	1418
35°	1121	1180	1285	1384	1414
37.5°	1087	1151	1273	1376	1405
40°	1046	1120	1257	1361	1391
42.5°	1002	1088	1240	1343	1377
45°	956	1055	1215	1325	1359
47.5°	904	1017	1187	1302	1324
50°	858	981	1155	1265	1292
52.5°	805	947	1123	1231	1236
55°	750	912	1088	1173	1169
57.5°	692	875	1037	1106	1090
60°	635	835	985	1026	991
62.5°	574	788	914	927	869
65°	515	737	833	802	748
67.5°	453	685	742	674	613
70°	393	628	624	553	442
72.5°	330	559	510	386	271
75°	271	486	387	215	170
77.5°	208	409	224	154	144
80°	155	320	154	132	120
82.5°	108	231	127	109	97
85°	64	138	97	81	66
87.5°	29	97	67	51	37
90°	0	53	33	7	3
92.5°	0	55	33	13	7
95°	0	67	34	16	9
97.5°	0	76	63	49	12
100°	0	84	89	86	59
102.5°	0	76	107	111	95
105°	0	58	129	132	119
107.5°	0	41	151	160	143
110°	0	24	164	187	170



TEST NUMBER: ITL44652
CATALOG NUMBER: DI-232

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0	13	156	207	200
115°	0	9	133	216	220
117.5°	0	10	107	199	233
120°	0	10	83	171	220
122.5°	0	6	59	141	190
125°	0	4	38	111	160
127.5°	0	4	20	83	128
130°	0	3	11	57	99
132.5°	0	2	11	31	70
135°	0	2	15	14	42
137.5°	0	1	17	10	23
140°	0	1	10	13	11
142.5°	0	0	6	19	12
145°	0	0	4	15	18
147.5°	0	0	4	7	19
150°	0	0	3	5	10
152.5°	0	0	3	4	6
155°	0	0	2	3	5
157.5°	0	0	1	3	4
160°	0	0	0	2	3
162.5°	0	0	0	1	3
165°	0	0	0	0	1
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)