

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: 112P102

Luminaire Tested: **DI-240**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 112P102
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: DI-240
Description: Heavy-duty Industrial with Edge Wipe Tombstone sockets and
uplight apertures.
Light Source: Two-F40CW, 3150 Lumens ea., 40 Watts ea.
Ballast/Driver: -

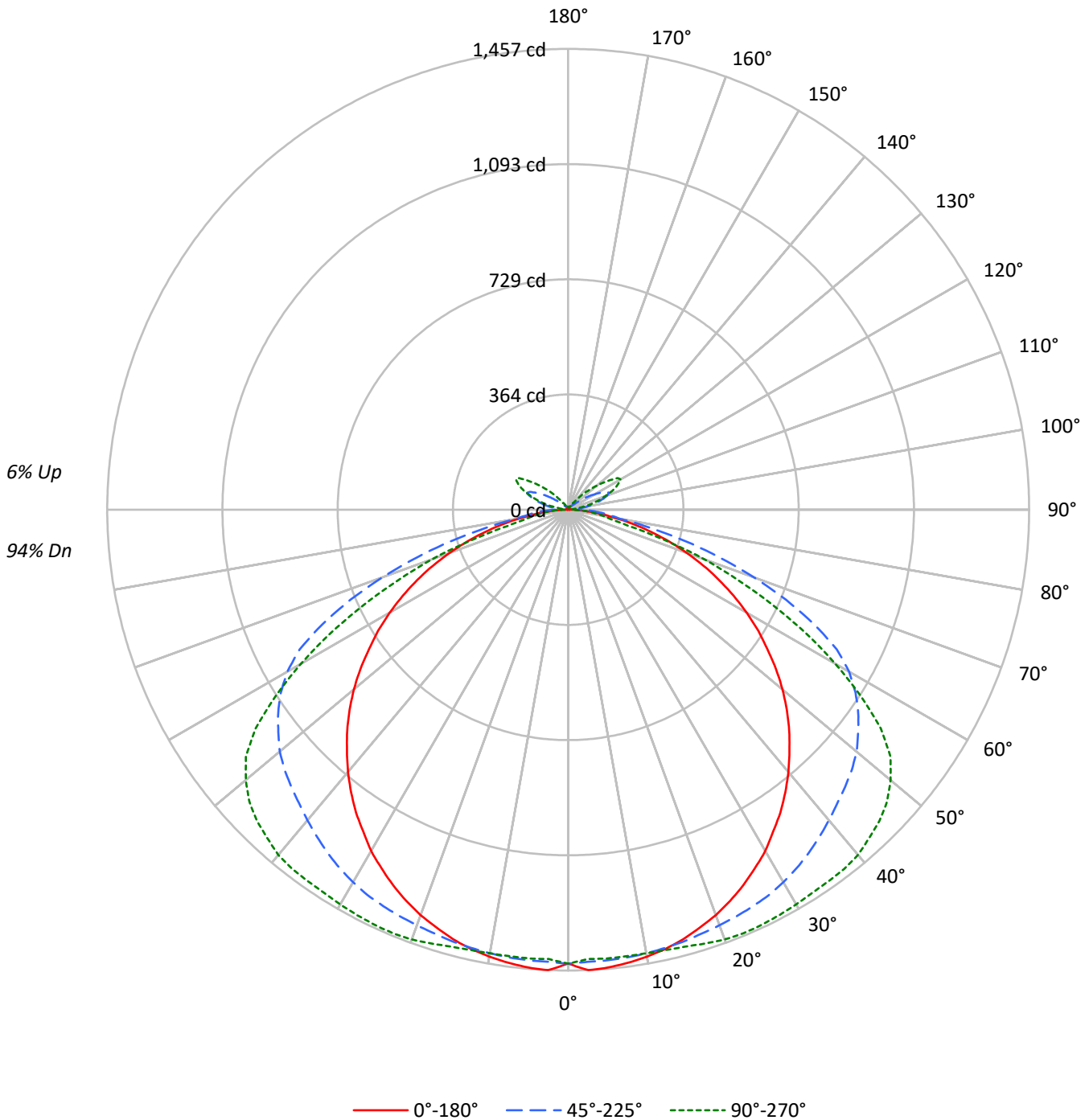
Summary

Lumens per Lamp: 3150 (2 lamps)
Luminaire Lumens: 5401.4 lumens
Efficiency: 85.7%
Efficacy: 61.2 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.53 / 1.59
Luminous Opening: Rectangular (W 1.09' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 88.2
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	50	30	10	0	
RCR																						
0	101	101	101	101	98	98	98	98	92	92	92	87	87	87	83	83	83	83	83	83	81	
1	92	87	84	80	89	85	82	78	80	78	75	76	74	72	72	70	69	69	69	69	67	
2	83	76	69	64	80	73	68	63	70	65	61	66	62	59	63	60	57	57	57	57	55	
3	75	66	59	53	73	64	57	52	61	55	50	58	53	49	55	51	47	47	47	47	45	
4	68	58	50	44	66	56	49	43	53	47	42	51	46	41	48	44	40	40	40	40	38	
5	63	51	43	37	60	50	43	37	48	41	36	45	40	35	43	38	34	34	34	34	32	
6	58	46	38	32	56	45	37	32	43	36	31	41	35	31	39	34	30	30	30	30	28	
7	53	41	34	28	51	40	33	28	39	32	27	37	31	27	35	30	26	26	26	26	24	
8	49	37	30	25	48	37	30	25	35	29	24	34	28	24	32	27	23	23	23	23	22	
9	46	34	27	22	44	34	27	22	32	26	22	31	25	21	30	25	21	21	21	21	19	
10	43	31	25	20	42	31	24	20	30	24	19	28	23	19	27	22	19	19	19	19	17	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3530	3530	3530
5°	3588	3531	3516
10°	3584	3557	3557
15°	3580	3598	3642
20°	3570	3659	3785
25°	3555	3754	3930
30°	3539	3863	4093
35°	3510	3979	4306
40°	3478	4116	4576
45°	3437	4307	4839
50°	3383	4554	5090
55°	3294	4799	5172
60°	3203	5043	4801
65°	3061	4988	4156
70°	2862	4488	3287
75°	2576	3640	1853
80°	2167	2380	1558
85°	1750	2822	1693



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	136.6	2.5	2.2	0°	1435	1435	1435	1435	1435	
10°-20°	400.7	7.4	6.4	5°	1453	1436	1430	1430	1424	138
20°-30°	637.5	11.8	10.1	15°	1406	1400	1413	1430	1430	397
30°-40°	822.5	15.2	13.1	25°	1310	1323	1383	1438	1448	604
40°-50°	940.2	17.4	14.9	35°	1169	1215	1325	1405	1434	731
50°-60°	939.9	17.4	14.9	45°	988	1088	1238	1357	1391	761
60°-70°	732.4	13.6	11.6	55°	768	920	1119	1208	1206	688
70°-80°	366.4	6.8	5.8	65°	526	744	857	760	714	520
80°-90°	106.6	2.0	1.7	75°	271	494	383	241	195	288
90°-100°	34.4	0.6	0.5	85°	62	135	100	69	60	70
100°-110°	76.4	1.4	1.2	90°	9	64	42	19	11	7
110°-120°	97.7	1.8	1.6	95°	2	48	34	16	11	2
120°-130°	67.3	1.2	1.1	105°	3	64	100	88	83	3
130°-140°	26.1	0.5	0.4	115°	4	22	133	165	165	4
140°-150°	8.8	0.2	0.1	125°	5	11	65	138	164	4
150°-160°	4.4	0.1	0.1	135°	6	9	22	58	78	5
160°-170°	2.5	0.0	0.0	145°	7	8	13	20	24	4
170°-180°	0.8	0.0	0.0	155°	7	8	9	11	11	4
0°-30°	1174.9	21.8	18.6	165°	9	9	9	9	9	2
0°-40°	1997.4	37.0	31.7	175°	9	9	9	8	7	1
0°-60°	3877.5	71.8	61.5	180°	8	8	8	8	8	
0°-90°	5082.9	94.1	80.7							
90°-120°	208.5	3.9	3.3							
90°-150°	310.7	5.8	4.9							
90°-180°	318.0	5.9	5.0							
0°-180°	5401.4	100.0	85.7							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1435	1435	1435	1435	1435
2.5°	1457	1440	1431	1430	1422
5°	1453	1436	1430	1430	1424
7.5°	1445	1431	1428	1430	1424
10°	1435	1424	1424	1430	1424
12.5°	1422	1413	1419	1429	1426
15°	1406	1400	1413	1430	1430
17.5°	1385	1385	1405	1433	1438
20°	1364	1366	1398	1438	1446
22.5°	1338	1346	1391	1440	1449
25°	1310	1323	1383	1438	1448
27.5°	1278	1299	1374	1432	1445
30°	1246	1272	1360	1423	1441
32.5°	1206	1243	1344	1414	1436
35°	1169	1215	1325	1405	1434
37.5°	1127	1184	1304	1398	1432
40°	1083	1154	1282	1391	1425
42.5°	1035	1122	1259	1378	1408
45°	988	1088	1238	1357	1391
47.5°	937	1050	1216	1333	1367
50°	884	1009	1190	1305	1330
52.5°	828	965	1155	1263	1284
55°	768	920	1119	1208	1206
57.5°	712	875	1077	1123	1096
60°	651	831	1025	1011	976
62.5°	589	789	957	890	848
65°	526	744	857	760	714
67.5°	463	687	745	626	579
70°	398	633	624	496	457
72.5°	334	572	500	374	322
75°	271	494	383	241	195
77.5°	211	398	265	152	136
80°	153	299	168	120	110
82.5°	104	207	130	94	85
85°	62	135	100	69	60
87.5°	30	102	72	43	34
90°	9	64	42	19	11
92.5°	3	47	34	15	9
95°	2	48	34	16	11
97.5°	3	56	47	22	14
100°	2	65	65	44	37
102.5°	3	71	82	67	61
105°	3	64	100	88	83
107.5°	3	53	117	108	104
110°	3	42	131	129	125



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4	31	140	147	146
115°	4	22	133	165	165
117.5°	4	16	116	177	179
120°	5	16	98	177	191
122.5°	5	12	82	158	186
125°	5	11	65	138	164
127.5°	5	10	50	117	142
130°	5	9	36	97	120
132.5°	6	9	25	76	98
135°	6	9	22	58	78
137.5°	6	8	19	41	58
140°	6	8	14	28	40
142.5°	6	8	13	24	27
145°	7	8	13	20	24
147.5°	7	8	11	14	18
150°	8	8	11	13	13
152.5°	8	7	10	12	12
155°	7	8	9	11	11
157.5°	9	8	9	10	10
160°	8	9	9	10	10
162.5°	8	8	9	9	8
165°	9	9	9	9	9
167.5°	9	9	10	9	8
170°	9	9	9	9	8
172.5°	9	10	10	9	8
175°	9	9	9	8	7
177.5°	8	9	9	8	7
180°	8	8	8	8	8

(END OF REPORT)