

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: G3-1811-046-20

Luminaire Tested: **4NLW4040C**

Test Date: 01/09/19



Test Information

Test Method: LM-41-14
Report Number: G3-1811-046-20
Test Lab: INNOVATION CENTER(G3)
Test Date: 01/09/19
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 4NLW4040C
Description: 4FT LW SPEC LINEAR WRAP 4000K UNV 0-10 DIM
Light Source: (280) REFOND LEDS 80 CRI 4000K
2835
Ballast/Driver: (1) EATON ELECTRONIC DRIVER AT 0.82A
EATON DRIVER 038W0A82-R/1B-00

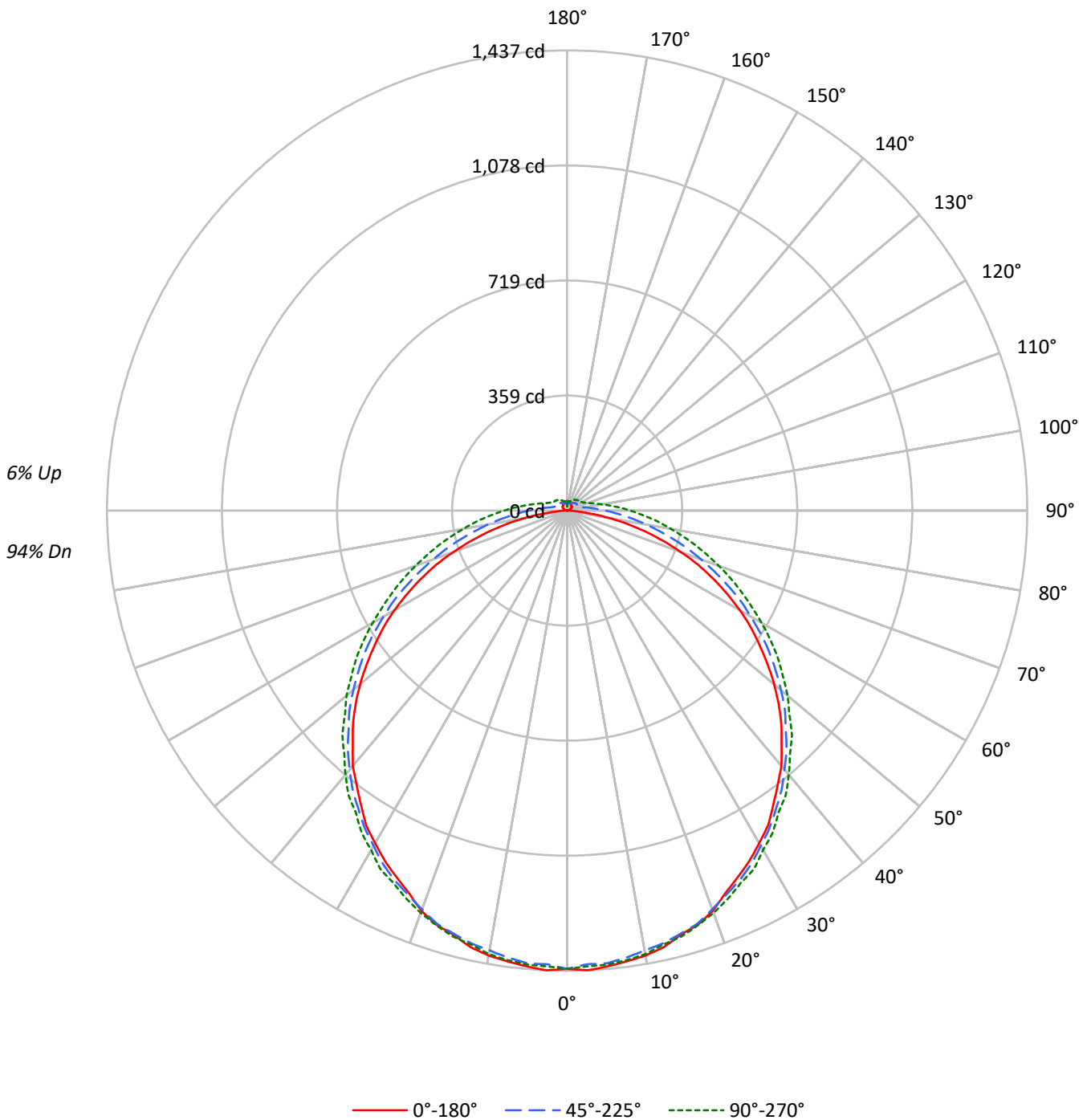
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4617.7 lumens
Efficiency: N/A
Efficacy: 122.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 4' x H: 0.17')
CIE Type: Direct

Input Watts (W): 37.7
Input Voltage (V): 277.1
Input Current (Ain): 0.147
Voltage Rise (V): NR
Power Factor: 0.9248
Total Harmonic Distortion (THDi): 7.11%
Frequency (hertz): 60
Stabilization Time: 0.5 HR
Operation Time: 3 HR
Ambient Temperature (°C): 24.6
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	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	83	83	81	79	77
2	96	88	80	74	93	85	79	73	81	75	70	76	72	68	73	69	66	63
3	88	77	68	61	85	75	67	60	71	64	59	67	62	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	73	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	38
6	68	54	45	39	65	53	44	38	51	43	37	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	38	33	44	37	32	42	36	32	30
8	58	45	36	30	57	44	36	30	42	35	29	40	34	29	39	33	28	26
9	55	41	33	27	53	40	32	27	39	31	26	37	31	26	36	30	26	24
10	51	38	30	25	50	37	29	24	36	29	24	34	28	24	33	27	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7702	7702	7702
5°	7692	7492	7470
10°	7655	7283	7257
15°	7555	7117	7043
20°	7504	6921	6829
25°	7351	6733	6594
30°	7276	6516	6379
35°	7163	6300	6131
40°	7067	6069	5913
45°	6912	5805	5668
50°	6732	5548	5387
55°	6500	5240	5111
60°	6255	4876	4784
65°	5880	4489	4463
70°	5323	4051	4131
75°	4535	3574	3827
80°	3284	3107	3528
85°	1506	2681	3312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.5	2.9
10°-20°	388.2	8.4
20°-30°	588.5	12.7
30°-40°	713.4	15.4
40°-50°	746.8	16.2
50°-60°	688.3	14.9
60°-70°	547.3	11.9
70°-80°	357.2	7.7
80°-90°	182.6	4.0
90°-100°	87.0	1.9
100°-110°	49.3	1.1
110°-120°	36.2	0.8
120°-130°	30.9	0.7
130°-140°	25.3	0.5
140°-150°	18.8	0.4
150°-160°	12.4	0.3
160°-170°	7.4	0.2
170°-180°	2.5	0.1
0°-30°	1112.2	24.1
0°-40°	1825.6	39.5
0°-60°	3260.7	70.6
0°-90°	4347.8	94.2
90°-120°	172.5	3.7
90°-150°	247.5	5.4
90°-180°	270.0	5.8
0°-180°	4617.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1431	1431	1431	1431	1431	
5°	1429	1431	1419	1429	1423	136
15°	1371	1378	1368	1377	1377	388
25°	1262	1273	1274	1284	1283	583
35°	1122	1132	1137	1154	1151	703
45°	946	953	965	982	993	729
55°	734	750	770	793	804	657
65°	503	517	553	589	601	497
75°	252	277	342	393	413	266
85°	36	94	175	235	258	50
90°	0	45	119	176	196	1
95°	1	24	81	130	148	1
105°	5	19	44	74	86	6
115°	11	21	36	52	59	11
125°	17	23	36	45	49	15
135°	20	22	33	43	46	15
145°	21	22	29	38	41	13
155°	24	23	24	30	34	11
165°	27	27	24	24	29	8
175°	29	29	28	23	26	3
180°	24	24	24	24	24	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1431	1431	1431	1431	1431
2.5°	1437	1438	1418	1436	1425
5°	1429	1431	1419	1429	1423
7.5°	1420	1421	1408	1422	1416
10°	1411	1409	1395	1412	1406
12.5°	1396	1394	1384	1392	1388
15°	1371	1378	1368	1377	1377
17.5°	1356	1357	1353	1366	1358
20°	1330	1335	1325	1335	1337
22.5°	1292	1305	1298	1311	1312
25°	1262	1273	1274	1284	1283
27.5°	1233	1244	1245	1253	1263
30°	1199	1208	1209	1222	1224
32.5°	1167	1169	1176	1191	1194
35°	1122	1132	1137	1154	1151
37.5°	1080	1091	1100	1109	1121
40°	1041	1046	1056	1074	1077
42.5°	991	1004	1014	1027	1030
45°	946	953	965	982	993
47.5°	896	902	922	940	941
50°	844	855	872	891	899
52.5°	789	802	821	846	849
55°	734	750	770	793	804
57.5°	681	691	718	743	753
60°	623	633	661	690	701
62.5°	563	576	611	642	649
65°	503	517	553	589	601
67.5°	443	456	498	539	552
70°	377	396	445	489	503
72.5°	313	335	393	440	457
75°	252	277	342	393	413
77.5°	191	224	294	351	370
80°	131	173	251	309	329
82.5°	78	129	211	272	293
85°	36	94	175	235	258
87.5°	8	66	145	205	224
90°	0	45	119	176	196
92.5°	0	32	98	151	172
95°	1	24	81	130	148
97.5°	2	20	67	113	128
100°	3	19	56	96	112
102.5°	4	18	49	84	98
105°	5	19	44	74	86
107.5°	7	19	41	66	76
110°	8	20	38	60	69



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	10	21	37	55	63
115°	11	21	36	52	59
117.5°	13	22	36	49	55
120°	15	23	36	48	53
122.5°	16	23	36	47	51
125°	17	23	36	45	49
127.5°	18	22	36	45	49
130°	19	22	35	44	47
132.5°	19	22	34	44	47
135°	20	22	33	43	46
137.5°	20	22	32	42	45
140°	20	22	31	41	43
142.5°	21	22	30	40	42
145°	21	22	29	38	41
147.5°	22	22	27	37	39
150°	22	23	26	34	37
152.5°	23	23	25	32	36
155°	24	23	24	30	34
157.5°	25	24	24	28	33
160°	26	25	24	27	31
162.5°	27	26	24	25	30
165°	27	27	24	24	29
167.5°	28	28	25	23	29
170°	29	28	26	23	29
172.5°	29	29	27	23	28
175°	29	29	28	23	26
177.5°	30	29	28	23	13
180°	24	24	24	24	24

(END OF REPORT)