

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: 134p124

Luminaire Tested: **WN-232A-UNV-EB81-PAF**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 134p124
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: WN-232A-UNV-EB81-PAF
Description: WRAPAROUND SERIES, 2 LAMP T8, WITH PRISMATIC WRAP LENS
PAF FINISH
Light Source: TWO LINEAR FLUORESCENT LAMPS, F32T8 32W - 3100 LUMENS EA
Ballast/Driver: -

Summary

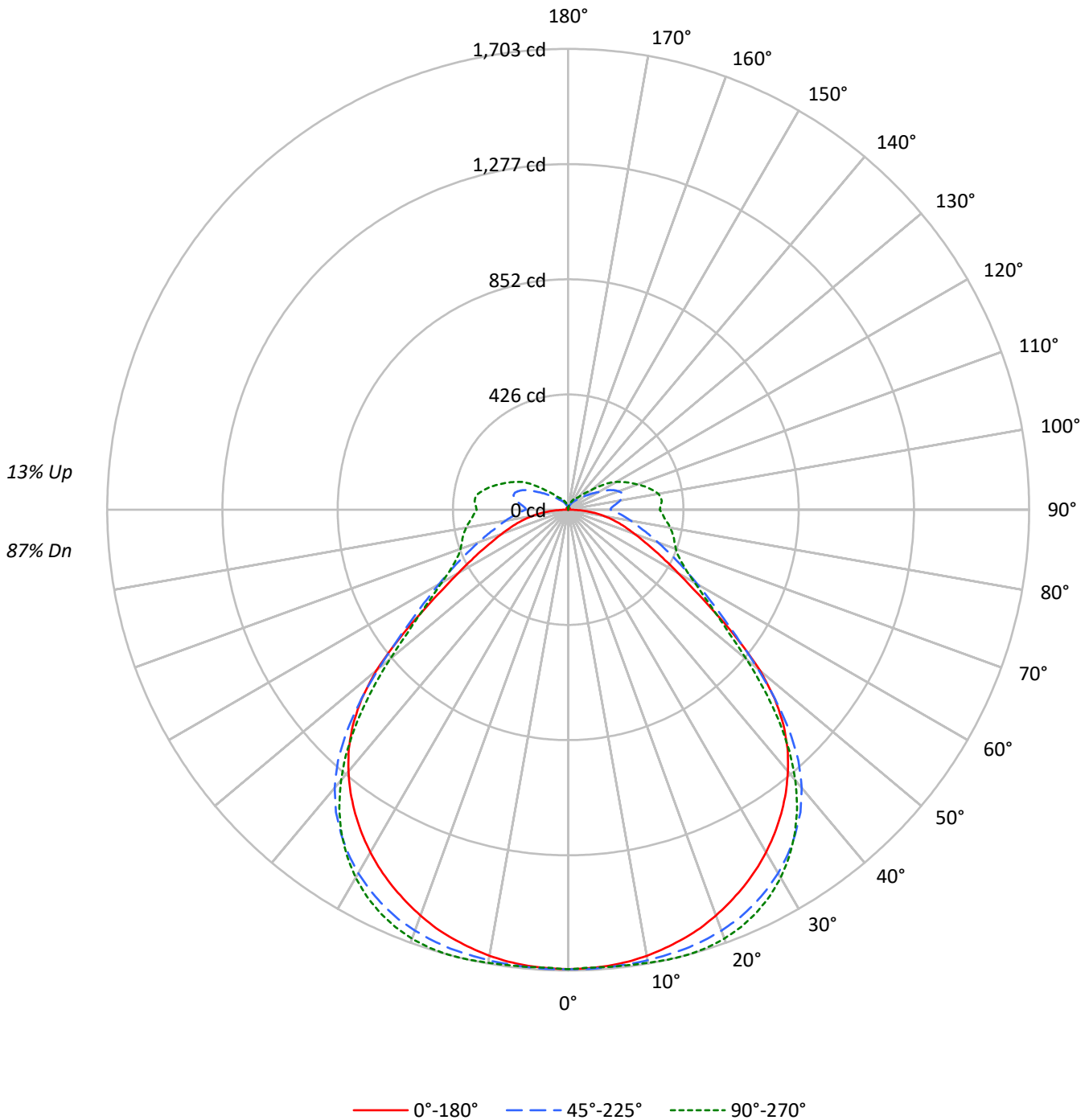
Lumens per Lamp: 3100 (2 lamps)
Luminaire Lumens: 5411.7 lumens
Efficiency: 87.3%
Efficacy: 98.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.39
Luminous Opening: Rectangular (W 0.62' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 55
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	101	101	101	101	98	98	98	98	91	91	91	85	85	85	79	79	79	76
1	92	88	84	80	88	85	81	78	79	76	74	74	71	69	69	67	65	63
2	84	77	71	66	81	74	69	64	69	65	61	65	61	58	61	58	55	53
3	77	68	61	55	74	66	59	54	61	56	52	58	53	49	54	50	47	45
4	70	60	53	47	68	58	52	46	55	49	45	52	47	43	48	44	41	39
5	65	54	47	41	62	52	45	40	49	43	39	47	41	37	44	39	36	34
6	60	49	41	36	58	47	40	35	45	39	34	42	37	33	40	35	32	30
7	56	44	37	32	54	43	36	31	41	35	30	39	33	29	37	32	28	27
8	52	40	33	28	50	39	33	28	37	31	27	35	30	26	34	29	25	24
9	48	37	30	25	47	36	30	25	34	29	24	33	27	24	31	26	23	21
10	45	34	28	23	44	33	27	23	32	26	22	30	25	22	29	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7311	7311	7311
5°	7313	7334	7330
10°	7319	7393	7432
15°	7319	7484	7591
20°	7313	7583	7730
25°	7297	7668	7810
30°	7269	7711	7805
35°	7211	7690	7674
40°	7099	7543	7340
45°	6850	7039	6692
50°	6196	6122	5754
55°	4962	5255	4977
60°	4039	4753	4641
65°	3535	4483	4717
70°	3286	4444	5325
75°	3261	4741	6721
80°	3347	5827	9496
85°	3458	9584	17636



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	161.7	3.0	2.6	0°	1698	1698	1698	1698	1698	
10°-20°	473.9	8.8	7.6	5°	1692	1695	1697	1700	1696	161
20°-30°	738.5	13.6	11.9	15°	1642	1654	1679	1700	1703	464
30°-40°	898.5	16.6	14.5	25°	1536	1566	1614	1641	1644	708
40°-50°	868.0	16.0	14.0	35°	1372	1416	1463	1468	1460	857
50°-60°	624.9	11.5	10.1	45°	1125	1158	1156	1118	1099	859
60°-70°	421.2	7.8	6.8	55°	661	711	700	682	663	602
70°-80°	307.6	5.7	5.0	65°	347	380	440	452	463	350
80°-90°	223.2	4.1	3.6	75°	196	215	285	357	404	208
90°-100°	192.0	3.5	3.1	85°	70	109	194	297	357	71
100°-110°	189.4	3.5	3.1	90°	6	61	156	282	338	7
110°-120°	146.2	2.7	2.4	95°	1	58	169	304	347	1
120°-130°	86.1	1.6	1.4	105°	3	73	209	287	308	3
130°-140°	42.3	0.8	0.7	115°	5	76	172	224	239	5
140°-150°	22.3	0.4	0.4	125°	7	49	101	144	163	6
150°-160°	11.5	0.2	0.2	135°	7	30	59	79	85	5
160°-170°	4.4	0.1	0.1	145°	7	21	40	50	52	5
170°-180°	0.2	0.0	0.0	155°	8	15	25	35	37	4
0°-30°	1374.0	25.4	22.2	165°	8	11	15	19	22	2
0°-40°	2272.5	42.0	36.7	175°	0	0	0	0	0	0
0°-60°	3765.4	69.6	60.7	180°	0	0	0	0	0	
0°-90°	4717.4	87.2	76.1							
90°-120°	527.5	9.7	8.5							
90°-150°	678.3	12.5	10.9							
90°-180°	694.0	12.8	11.2							
0°-180°	5411.7	100.0	87.3							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1698	1698	1698	1698	1698
2.5°	1696	1698	1699	1699	1694
5°	1692	1695	1697	1700	1696
7.5°	1685	1688	1694	1700	1698
10°	1674	1680	1691	1701	1700
12.5°	1659	1668	1685	1702	1703
15°	1642	1654	1679	1700	1703
17.5°	1622	1636	1669	1695	1698
20°	1596	1616	1655	1683	1687
22.5°	1567	1593	1638	1665	1669
25°	1536	1566	1614	1641	1644
27.5°	1501	1537	1585	1610	1611
30°	1462	1501	1551	1571	1570
32.5°	1419	1461	1510	1525	1520
35°	1372	1416	1463	1468	1460
37.5°	1320	1364	1409	1401	1389
40°	1263	1305	1342	1320	1306
42.5°	1200	1238	1259	1226	1210
45°	1125	1158	1156	1118	1099
47.5°	1035	1060	1037	1001	980
50°	925	947	914	883	859
52.5°	793	825	797	773	747
55°	661	711	700	682	663
57.5°	551	607	620	607	593
60°	469	518	552	544	539
62.5°	403	443	492	493	495
65°	347	380	440	452	463
67.5°	299	328	393	419	439
70°	261	284	353	394	423
72.5°	227	247	317	373	412
75°	196	215	285	357	404
77.5°	166	187	258	342	394
80°	135	160	235	327	383
82.5°	104	134	213	311	370
85°	70	109	194	297	357
87.5°	37	85	175	287	348
90°	6	61	156	282	338
92.5°	1	57	159	293	342
95°	1	58	169	304	347
97.5°	2	60	182	310	346
100°	2	64	195	308	338
102.5°	3	68	205	299	324
105°	3	73	209	287	308
107.5°	4	74	207	272	291
110°	4	76	199	255	273



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5	78	187	240	256
115°	5	76	172	224	239
117.5°	6	69	152	208	222
120°	6	62	131	191	206
122.5°	6	55	115	171	187
125°	7	49	101	144	163
127.5°	7	44	88	122	136
130°	7	38	77	105	115
132.5°	7	34	67	91	99
135°	7	30	59	79	85
137.5°	7	27	52	67	73
140°	7	25	47	59	62
142.5°	8	23	44	54	56
145°	7	21	40	50	52
147.5°	7	19	35	47	48
150°	7	18	32	43	45
152.5°	8	17	28	39	42
155°	8	15	25	35	37
157.5°	8	14	22	30	33
160°	8	13	19	26	29
162.5°	8	12	17	22	25
165°	8	11	15	19	22
167.5°	9	10	13	16	18
170°	9	10	12	13	15
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)