

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: 134p132

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 134p132
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-U
Description: WRAPAROUND SERIES, 2 LAMP T8, WITH PRISMATIC WRAP LENS
Light Source: TWO LINEAR FLUORESCENT LAMPS, F32T8 32W - 3100 LUMENS EA
Ballast/Driver: -

Summary

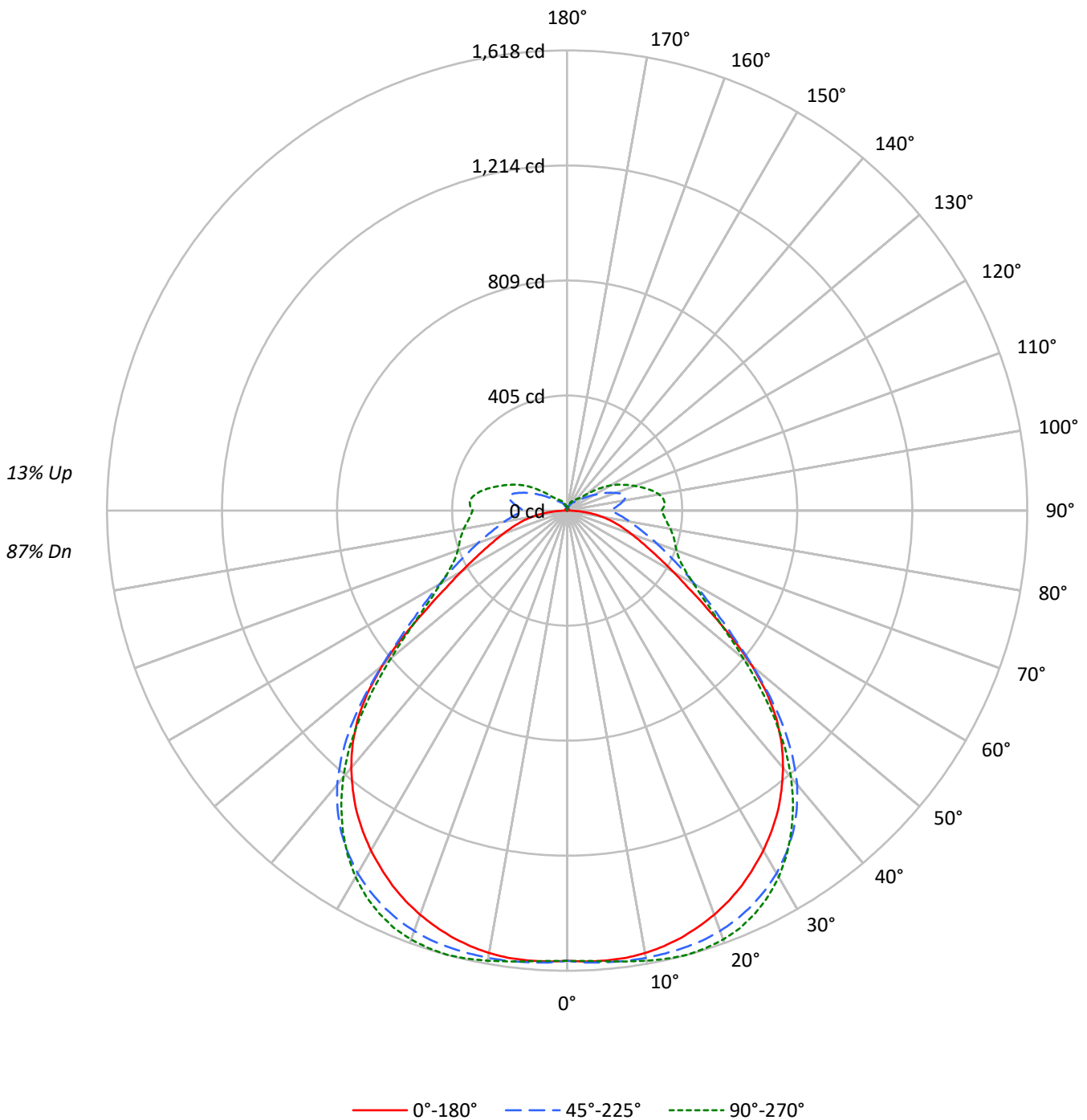
Lumens per Lamp: 3100 (2 lamps)
Luminaire Lumens: 5086.1 lumens
Efficiency: 82.0%
Efficacy: 92.5 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.36 / 1.39
Luminous Opening: Rectangular (W 0.62' x L: 3.98' x H: 0')
CIE Type: Semi-Direct

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	50	30	10	50	30	10	0		
RCR																										
0	95	95	95	95	92	92	92	92	85	85	85	80	80	80	74	74	74	74	74	74	74	74	74	72		
1	86	82	79	76	83	80	76	73	74	72	69	69	67	65	65	63	61	61	61	61	61	61	61	59		
2	79	72	67	62	76	70	65	60	65	61	57	61	58	55	57	54	52	52	52	52	52	52	52	50		
3	72	64	57	52	69	62	56	51	58	53	49	54	50	47	51	47	45	45	45	45	45	45	45	42		
4	66	57	50	44	64	55	49	44	52	46	42	49	44	40	46	42	39	39	39	39	39	39	39	37		
5	61	51	44	39	59	49	43	38	46	41	36	44	39	35	41	37	34	34	34	34	34	34	34	32		
6	57	46	39	34	54	45	38	33	42	36	32	40	35	31	38	33	30	30	30	30	30	30	30	28		
7	52	42	35	30	50	41	34	29	38	33	29	36	31	28	34	30	27	27	27	27	27	27	27	25		
8	49	38	31	27	47	37	31	26	35	30	26	33	28	25	32	27	24	24	24	24	24	24	24	22		
9	46	35	28	24	44	34	28	24	32	27	23	31	26	22	29	25	22	22	22	22	22	22	22	20		
10	43	32	26	22	41	31	25	21	30	25	21	29	24	20	27	23	20	20	20	20	20	20	20	18		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6851	6851	6851
5°	6899	6925	6912
10°	6944	7019	7063
15°	6963	7129	7250
20°	6964	7245	7392
25°	6944	7326	7464
30°	6897	7362	7437
35°	6821	7313	7265
40°	6673	7108	6921
45°	6384	6592	6304
50°	5710	5730	5447
55°	4543	4943	4724
60°	3714	4484	4432
65°	3246	4230	4547
70°	3037	4214	5176
75°	3010	4515	6522
80°	3066	5558	9197
85°	3079	9187	17232



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	152.1	3.0	2.5	0°	1583	1583	1583	1583	1583	
10°-20°	449.2	8.8	7.2	5°	1588	1591	1594	1595	1591	151
20°-30°	700.9	13.8	11.3	15°	1554	1565	1591	1615	1618	439
30°-40°	846.8	16.6	13.7	25°	1454	1482	1534	1561	1563	670
40°-50°	809.5	15.9	13.1	35°	1291	1333	1384	1385	1375	806
50°-60°	582.2	11.4	9.4	45°	1043	1075	1077	1047	1030	796
60°-70°	395.5	7.8	6.4	55°	602	653	655	643	626	550
70°-80°	291.0	5.7	4.7	65°	317	350	413	431	444	320
80°-90°	213.9	4.2	3.4	75°	180	198	270	343	390	191
90°-100°	193.0	3.8	3.1	85°	62	101	185	288	347	64
100°-110°	184.1	3.6	3.0	90°	3	58	155	280	332	5
110°-120°	129.5	2.5	2.1	95°	1	60	176	305	344	1
120°-130°	70.8	1.4	1.1	105°	3	73	209	276	293	3
130°-140°	33.9	0.7	0.5	115°	5	67	146	200	215	5
140°-150°	19.4	0.4	0.3	125°	7	41	82	119	132	6
150°-160°	10.2	0.2	0.2	135°	7	26	48	60	62	5
160°-170°	4.0	0.1	0.1	145°	7	19	35	44	44	4
170°-180°	0.2	0.0	0.0	155°	7	14	22	31	33	3
0°-30°	1302.2	25.6	21.0	165°	8	10	14	17	19	2
0°-40°	2149.0	42.3	34.7	175°	0	0	0	0	0	0
0°-60°	3540.7	69.6	57.1	180°	0	0	0	0	0	0
0°-90°	4441.1	87.3	71.6							
90°-120°	506.6	10.0	8.2							
90°-150°	630.6	12.4	10.2							
90°-180°	645.0	12.7	10.4							
0°-180°	5086.1	100.0	82.0							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1583	1583	1583	1583	1583
2.5°	1587	1590	1591	1590	1585
5°	1588	1591	1594	1595	1591
7.5°	1586	1590	1597	1602	1599
10°	1580	1585	1597	1608	1607
12.5°	1569	1577	1595	1613	1614
15°	1554	1565	1591	1615	1618
17.5°	1535	1551	1585	1611	1614
20°	1512	1532	1573	1601	1605
22.5°	1485	1511	1556	1585	1589
25°	1454	1482	1534	1561	1563
27.5°	1418	1454	1506	1530	1530
30°	1380	1419	1473	1491	1488
32.5°	1337	1379	1431	1443	1436
35°	1291	1333	1384	1385	1375
37.5°	1238	1281	1326	1316	1305
40°	1181	1222	1258	1238	1225
42.5°	1117	1154	1174	1148	1134
45°	1043	1075	1077	1047	1030
47.5°	954	981	966	937	919
50°	848	873	851	829	809
52.5°	724	760	744	729	708
55°	602	653	655	643	626
57.5°	503	557	581	572	561
60°	429	475	518	515	512
62.5°	368	407	462	469	473
65°	317	350	413	431	444
67.5°	275	302	370	401	423
70°	240	262	333	378	409
72.5°	209	227	299	358	398
75°	180	198	270	343	390
77.5°	152	172	245	327	379
80°	123	148	223	313	369
82.5°	94	124	203	299	357
85°	62	101	185	288	347
87.5°	32	79	168	280	339
90°	3	58	155	280	332
92.5°	0	57	164	294	341
95°	1	60	176	305	344
97.5°	1	63	190	309	339
100°	2	67	202	304	328
102.5°	3	70	210	292	312
105°	3	73	209	276	293
107.5°	4	75	198	256	273
110°	4	73	182	237	253



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5	71	164	218	234
115°	5	67	146	200	215
117.5°	6	60	128	180	197
120°	6	52	111	160	177
122.5°	7	46	95	140	155
125°	7	41	82	119	132
127.5°	7	36	71	98	109
130°	7	33	61	80	89
132.5°	7	29	54	68	73
135°	7	26	48	60	62
137.5°	7	24	44	54	57
140°	7	22	41	50	52
142.5°	7	20	37	46	48
145°	7	19	35	44	44
147.5°	7	17	32	40	41
150°	7	16	29	37	39
152.5°	7	15	25	35	36
155°	7	14	22	31	33
157.5°	7	13	19	27	30
160°	7	12	17	23	25
162.5°	7	11	15	20	22
165°	8	10	14	17	19
167.5°	8	10	13	15	17
170°	8	9	11	12	14
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)