

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: 134p133

Luminaire Tested: **WN-228T8A-EB81-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 134p133
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: WN-228T8A-EB81-U
Description: WRAPAROUND SERIES LUMINAIRE, 2 LAMP 28W T8, WITH PRISMATIC WRAP LENS
Light Source: TWO LINEAR FLUORESCENT LAMPS, F28T8 28W - 2800 LUMENS EA
Ballast/Driver: -

Summary

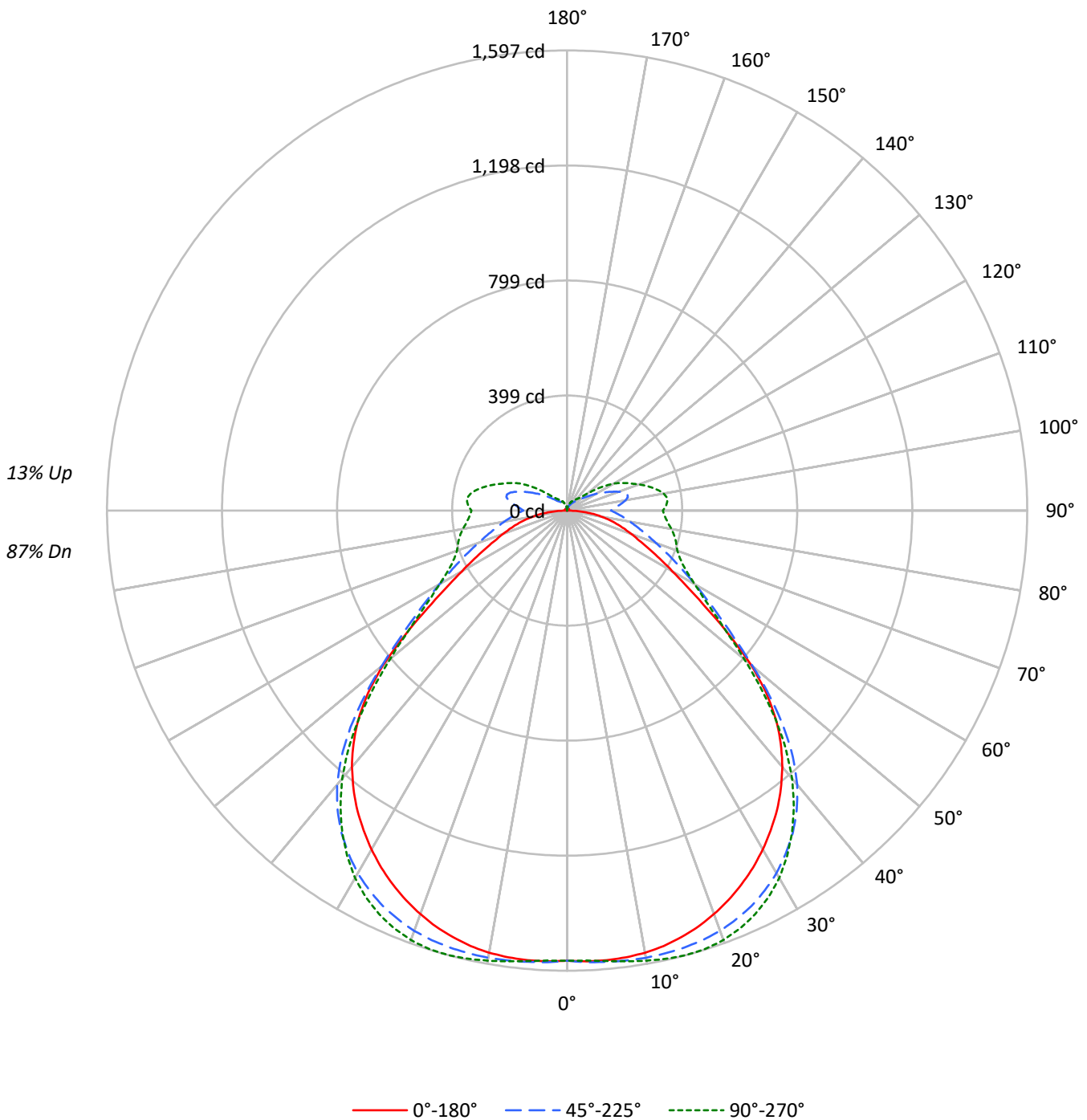
Lumens per Lamp: 2800 (2 lamps)
Luminaire Lumens: 5051.5 lumens
Efficiency: 90.2%
Efficacy: 103.1 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.36 / 1.39
Luminous Opening: Rectangular (W 0.62' x L: 3.98' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 49
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

TEST NUMBER: 134p133

CATALOG NUMBER: WN-228T8A-EB81-U

Luminous Intensity Polar Plot





TEST NUMBER: 134p133

CATALOG NUMBER: WN-228T8A-EB81-U

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	105	105	105	105	101	101	101	101	94	94	94	87	87	87	81	81	81	78
1	95	91	87	83	91	87	84	80	81	78	76	76	73	71	71	69	67	65
2	87	79	73	68	83	77	71	66	71	67	63	67	63	60	62	59	57	54
3	79	70	63	57	76	68	61	56	63	58	53	59	55	51	56	52	49	46
4	73	62	55	49	70	60	53	48	57	51	46	53	48	44	50	46	42	40
5	67	56	48	42	64	54	47	41	51	45	40	48	43	38	45	41	37	35
6	62	50	43	37	60	49	42	36	46	40	35	44	38	34	41	36	33	31
7	58	46	38	33	55	45	37	32	42	36	31	40	34	30	38	33	29	27
8	54	42	34	29	52	41	34	29	39	32	28	37	31	27	35	30	26	24
9	50	38	31	26	48	37	31	26	35	29	25	34	28	25	32	27	24	22
10	47	35	28	24	45	34	28	24	33	27	23	31	26	22	30	25	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6761	6761	6761
5°	6804	6830	6817
10°	6847	6926	6970
15°	6865	7035	7156
20°	6863	7148	7305
25°	6839	7230	7378
30°	6787	7262	7357
35°	6710	7212	7191
40°	6565	7017	6859
45°	6274	6506	6256
50°	5609	5663	5407
55°	4452	4890	4701
60°	3653	4432	4415
65°	3195	4178	4527
70°	2986	4151	5150
75°	2977	4465	6505
80°	3016	5508	9147
85°	3029	9137	17133



TEST NUMBER: 134p133

CATALOG NUMBER: WN-228T8A-EB81-U

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	150.0	3.0	2.7	0°	1562	1562	1562	1562	1562	
10°-20°	443.2	8.8	7.9	5°	1566	1570	1572	1574	1569	149
20°-30°	691.7	13.7	12.4	15°	1532	1544	1570	1594	1597	433
30°-40°	835.8	16.5	14.9	25°	1432	1463	1514	1542	1545	660
40°-50°	799.3	15.8	14.3	35°	1270	1313	1365	1370	1361	793
50°-60°	575.3	11.4	10.3	45°	1025	1058	1063	1037	1022	782
60°-70°	391.5	7.8	7.0	55°	590	642	648	638	623	540
70°-80°	288.9	5.7	5.2	65°	312	345	408	429	442	315
80°-90°	212.3	4.2	3.8	75°	178	196	267	341	389	188
90°-100°	194.5	3.9	3.5	85°	61	100	184	286	345	62
100°-110°	191.0	3.8	3.4	90°	3	57	152	277	332	5
110°-120°	135.4	2.7	2.4	95°	1	60	175	308	349	1
120°-130°	73.8	1.5	1.3	105°	4	75	216	287	306	4
130°-140°	34.6	0.7	0.6	115°	6	69	151	210	226	6
140°-150°	19.5	0.4	0.3	125°	8	42	85	124	138	7
150°-160°	10.2	0.2	0.2	135°	8	27	48	61	64	6
160°-170°	4.1	0.1	0.1	145°	8	19	35	43	44	5
170°-180°	0.2	0.0	0.0	155°	8	14	22	31	33	4
0°-30°	1285.0	25.4	22.9	165°	8	11	14	17	20	2
0°-40°	2120.8	42.0	37.9	175°	0	0	0	0	0	0
0°-60°	3495.4	69.2	62.4	180°	0	0	0	0	0	0
0°-90°	4388.2	86.9	78.4							
90°-120°	521.0	10.3	9.3							
90°-150°	648.9	12.8	11.6							
90°-180°	663.0	13.1	11.8							
0°-180°	5051.5	100.0	90.2							



TEST NUMBER: 134p133

CATALOG NUMBER: WN-228T8A-EB81-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1562	1562	1562	1562	1562
2.5°	1566	1568	1569	1568	1563
5°	1566	1570	1572	1574	1569
7.5°	1564	1568	1575	1580	1578
10°	1558	1563	1576	1586	1586
12.5°	1548	1555	1574	1592	1593
15°	1532	1544	1570	1594	1597
17.5°	1514	1530	1563	1590	1595
20°	1490	1511	1552	1581	1586
22.5°	1463	1490	1535	1565	1569
25°	1432	1463	1514	1542	1545
27.5°	1397	1433	1486	1512	1513
30°	1358	1399	1453	1474	1472
32.5°	1315	1359	1412	1427	1421
35°	1270	1313	1365	1370	1361
37.5°	1218	1262	1309	1302	1292
40°	1162	1203	1242	1225	1214
42.5°	1098	1136	1160	1136	1124
45°	1025	1058	1063	1037	1022
47.5°	938	965	954	929	911
50°	833	859	841	822	803
52.5°	709	747	735	722	703
55°	590	642	648	638	623
57.5°	495	548	575	569	559
60°	422	468	512	513	510
62.5°	362	401	456	466	472
65°	312	345	408	429	442
67.5°	270	298	365	399	422
70°	236	259	328	375	407
72.5°	206	225	295	357	398
75°	178	196	267	341	389
77.5°	149	171	243	327	379
80°	121	147	221	312	367
82.5°	92	123	202	297	355
85°	61	100	184	286	345
87.5°	30	79	167	278	337
90°	3	57	152	277	332
92.5°	1	57	162	293	343
95°	1	60	175	308	349
97.5°	2	64	191	315	349
100°	2	68	206	313	340
102.5°	3	72	216	303	325
105°	4	75	216	287	306
107.5°	4	76	207	268	286
110°	5	75	191	248	265



TEST NUMBER: 134p133

CATALOG NUMBER: WN-228T8A-EB81-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6	74	171	228	244
115°	6	69	151	210	226
117.5°	7	62	133	190	207
120°	7	54	115	168	187
122.5°	8	48	99	146	163
125°	8	42	85	124	138
127.5°	8	38	73	102	114
130°	8	33	63	83	92
132.5°	8	30	54	70	75
135°	8	27	48	61	64
137.5°	8	25	44	54	57
140°	8	23	41	50	52
142.5°	8	21	38	46	48
145°	8	19	35	43	44
147.5°	8	18	32	40	41
150°	8	16	28	37	38
152.5°	8	15	25	35	36
155°	8	14	22	31	33
157.5°	8	13	19	27	29
160°	8	12	17	23	26
162.5°	8	11	15	20	22
165°	8	11	14	17	20
167.5°	8	10	13	15	17
170°	8	10	11	12	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)