

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: 134p131

Luminaire Tested: **WN-432A-UNV-EB81-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 134p131
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: WN-432A-UNV-EB81-U
Description: WRAPAROUND SERIES, 4 LAMP T8, WITH PRISMATIC WRAP LENS
Light Source: FOUR LINEAR FLUORESCENT LAMPS, F32T8 32W - 3100 LUMENS EA
Ballast/Driver: -

Summary

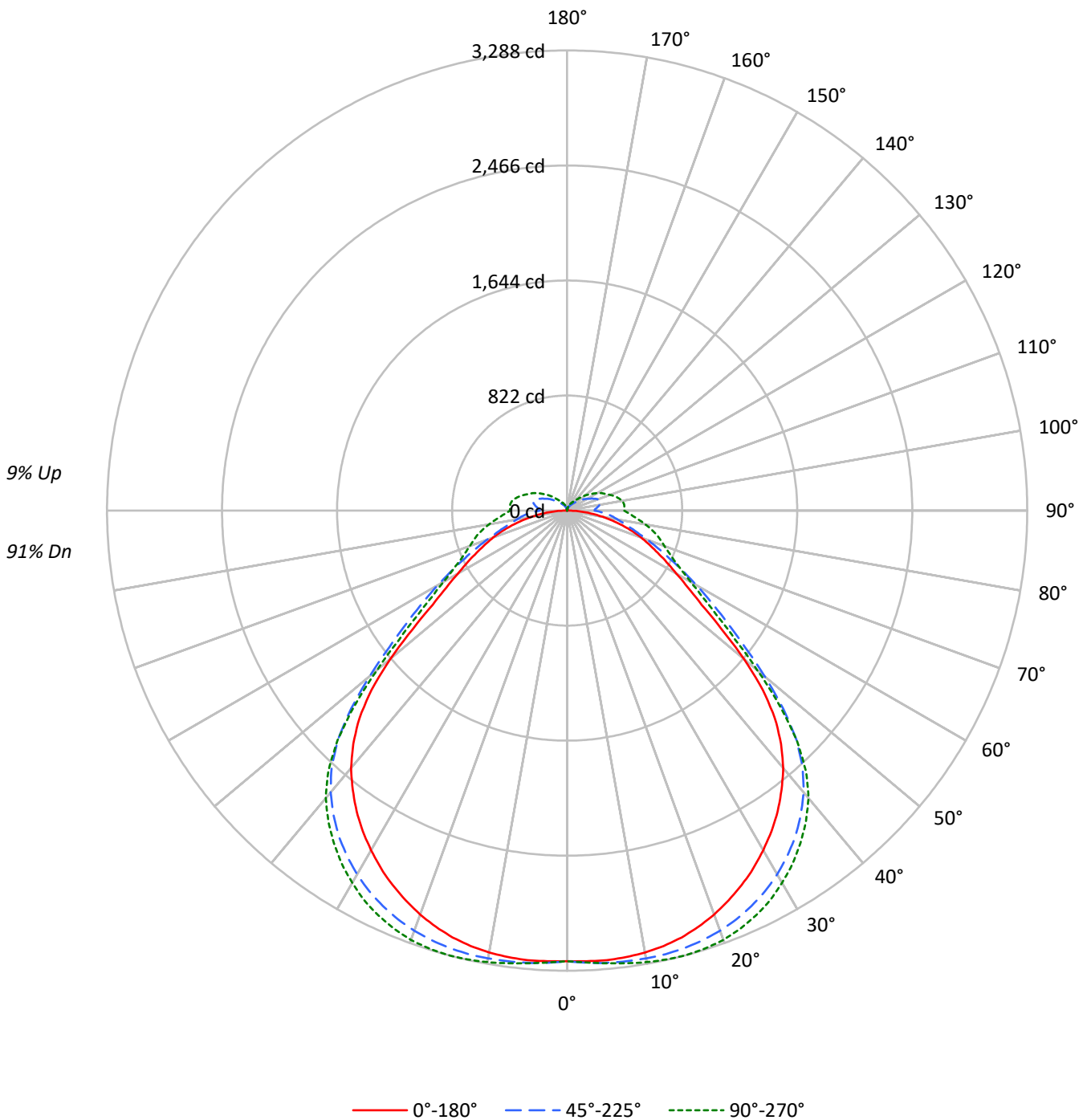
Lumens per Lamp: 3100 (4 lamps)
Luminaire Lumens: 9812.0 lumens
Efficiency: 79.1%
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.39 / 1.42
Luminous Opening: Rectangular (W 1' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 102
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	93	93	93	93	90	90	90	90	84	84	84	79	79	79	74	74	74	72
1	84	81	77	74	82	78	75	73	74	71	69	69	67	66	65	64	63	60
2	77	71	66	61	75	69	64	60	65	61	58	61	58	55	58	55	53	51
3	71	63	57	52	68	61	55	51	58	53	49	55	51	47	52	48	46	44
4	65	56	49	44	63	54	48	43	52	46	42	49	44	41	46	43	40	38
5	60	50	43	38	58	49	42	38	46	41	37	44	39	36	42	38	35	33
6	55	45	38	34	53	44	38	33	42	36	32	40	35	31	38	34	31	29
7	51	41	34	30	50	40	34	29	38	33	29	37	32	28	35	31	27	26
8	48	38	31	27	46	37	31	26	35	30	26	34	29	25	32	28	25	23
9	45	34	28	24	43	34	28	24	32	27	23	31	26	23	30	25	22	21
10	42	32	26	22	41	31	25	21	30	25	21	29	24	21	28	23	20	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8710	8710	8710
5°	8757	8809	8817
10°	8806	8924	8999
15°	8844	9062	9208
20°	8840	9194	9396
25°	8811	9303	9527
30°	8752	9377	9592
35°	8662	9388	9593
40°	8482	9284	9474
45°	8034	8860	8871
50°	6944	7752	7461
55°	5537	6574	6155
60°	4880	5773	5513
65°	4570	5159	5402
70°	4437	4809	5845
75°	4264	4839	6908
80°	4019	5701	8833
85°	3818	8877	14774



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	309.4	3.2	2.5	0°	3220	3220	3220	3220	3220	
10°-20°	912.9	9.3	7.4	5°	3225	3233	3244	3245	3247	307
20°-30°	1426.8	14.5	11.5	15°	3158	3185	3236	3275	3288	891
30°-40°	1752.1	17.9	14.1	25°	2952	3018	3117	3176	3192	1360
40°-50°	1725.6	17.6	13.9	35°	2623	2722	2843	2897	2905	1638
50°-60°	1210.8	12.3	9.8	45°	2100	2213	2316	2342	2319	1596
60°-70°	781.9	8.0	6.3	55°	1174	1328	1394	1355	1305	1084
70°-80°	514.2	5.2	4.1	65°	714	703	806	826	844	713
80°-90°	317.5	3.2	2.6	75°	408	375	463	558	661	431
90°-100°	230.7	2.4	1.9	85°	123	175	286	404	476	128
100°-110°	226.7	2.3	1.8	90°	6	69	196	345	407	10
110°-120°	174.9	1.8	1.4	95°	1	68	211	363	411	1
120°-130°	112.5	1.1	0.9	105°	4	87	250	345	367	4
130°-140°	62.1	0.6	0.5	115°	6	85	202	270	288	6
140°-150°	31.9	0.3	0.3	125°	8	61	139	192	206	7
150°-160°	15.6	0.2	0.1	135°	9	42	86	117	131	7
160°-170°	6.0	0.1	0.0	145°	10	28	55	72	79	6
170°-180°	0.3	0.0	0.0	155°	11	19	34	48	52	5
0°-30°	2649.0	27.0	21.4	165°	11	14	20	27	29	3
0°-40°	4401.2	44.9	35.5	175°	0	0	0	0	0	0
0°-60°	7337.6	74.8	59.2	180°	0	0	0	0	0	0
0°-90°	8951.2	91.2	72.2							
90°-120°	632.4	6.4	5.1							
90°-150°	839.0	8.6	6.8							
90°-180°	861.0	8.8	6.9							
0°-180°	9812.0	100.0	79.1							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3220	3220	3220	3220	3220
2.5°	3223	3229	3235	3233	3232
5°	3225	3233	3244	3245	3247
7.5°	3219	3231	3248	3259	3263
10°	3206	3223	3249	3269	3276
12.5°	3187	3207	3247	3276	3285
15°	3158	3185	3236	3275	3288
17.5°	3119	3155	3219	3267	3281
20°	3071	3116	3194	3246	3264
22.5°	3015	3070	3161	3217	3234
25°	2952	3018	3117	3176	3192
27.5°	2882	2956	3065	3124	3140
30°	2802	2889	3002	3061	3071
32.5°	2717	2810	2927	2985	2996
35°	2623	2722	2843	2897	2905
37.5°	2516	2620	2742	2797	2802
40°	2402	2506	2629	2679	2683
42.5°	2262	2374	2491	2533	2526
45°	2100	2213	2316	2342	2319
47.5°	1896	2017	2093	2101	2059
50°	1650	1787	1842	1830	1773
52.5°	1390	1546	1600	1570	1513
55°	1174	1328	1394	1355	1305
57.5°	1022	1136	1220	1184	1144
60°	902	971	1067	1044	1019
62.5°	803	827	928	926	921
65°	714	703	806	826	844
67.5°	634	597	700	741	787
70°	561	510	608	667	739
72.5°	485	438	528	608	700
75°	408	375	463	558	661
77.5°	332	318	409	515	616
80°	258	266	366	476	567
82.5°	187	221	328	440	520
85°	123	175	286	404	476
87.5°	63	122	240	371	438
90°	6	69	196	345	407
92.5°	0	65	199	353	409
95°	1	68	211	363	411
97.5°	2	73	224	366	407
100°	2	77	236	364	399
102.5°	3	82	246	357	385
105°	4	87	250	345	367
107.5°	4	90	246	329	349
110°	5	93	235	309	327



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5	90	220	288	306
115°	6	85	202	270	288
117.5°	6	80	184	252	271
120°	7	73	169	232	250
122.5°	8	67	154	211	228
125°	8	61	139	192	206
127.5°	8	56	122	173	186
130°	8	51	108	156	167
132.5°	8	46	97	136	149
135°	9	42	86	117	131
137.5°	9	38	77	101	113
140°	9	34	68	90	98
142.5°	10	31	61	81	89
145°	10	28	55	72	79
147.5°	10	25	50	65	71
150°	10	23	44	59	64
152.5°	10	21	39	53	57
155°	11	19	34	48	52
157.5°	10	18	30	42	46
160°	11	16	26	37	40
162.5°	11	15	23	31	35
165°	11	14	20	27	29
167.5°	12	14	17	22	25
170°	11	13	15	18	20
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)