

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: 134p134

Luminaire Tested: **WN-428T5A-UNV-EBT2-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 134p134
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: WN-428T5A-UNV-EBT2-U
Description: WRAPAROUND SERIES, 4 LAMP T5, WITH PRISMATIC WRAP LENS
Light Source: FOUR LINEAR FLUORESCENT LAMPS, F28T5 28 W - 2600 LUMENS EA
Ballast/Driver: -

Summary

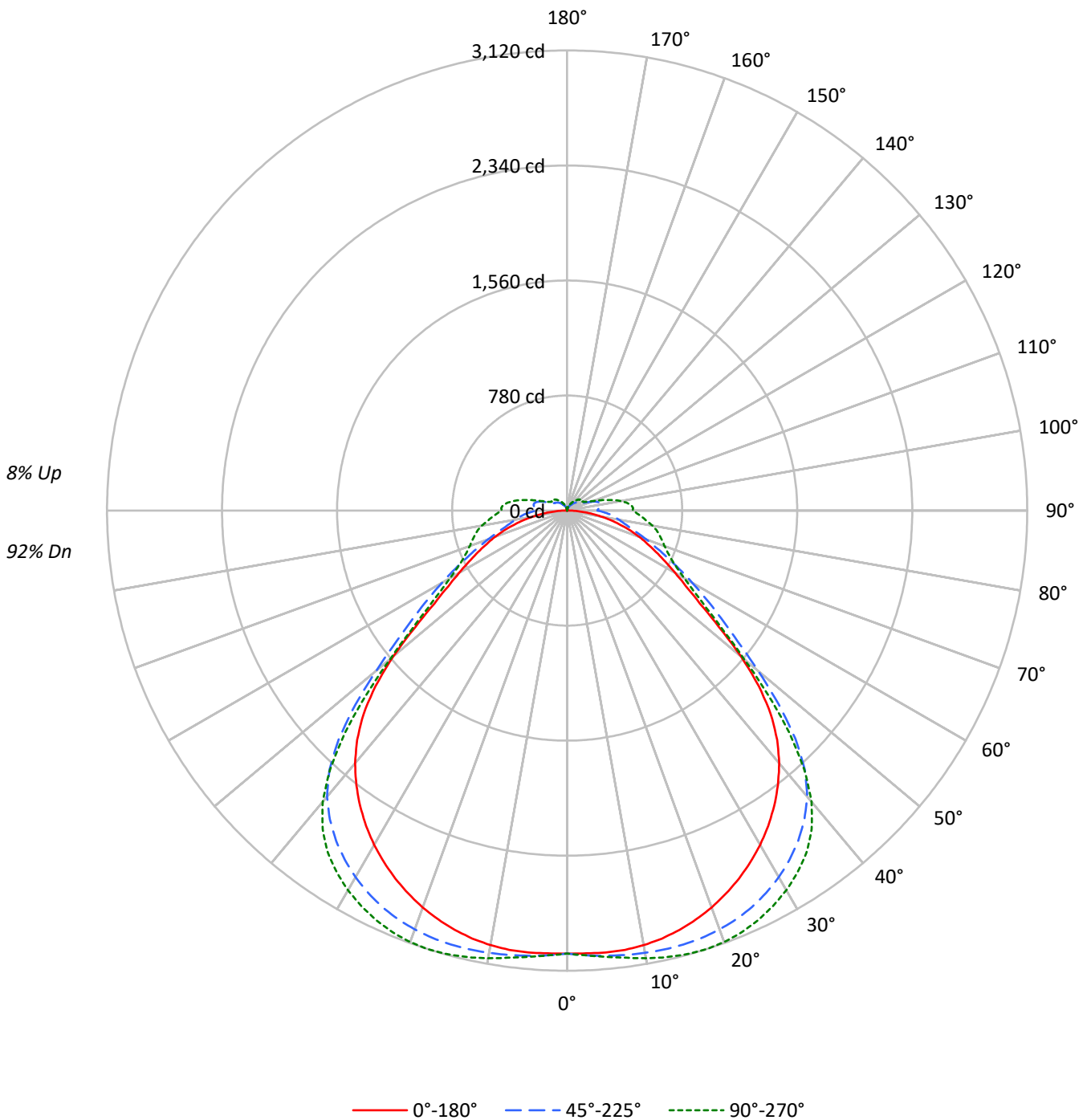
Lumens per Lamp: 2600 (4 lamps)
Luminaire Lumens: 9141.3 lumens
Efficiency: 87.9%
Efficacy: 69.8 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.44 / 1.43
Luminous Opening: Rectangular (W 0.98' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 131
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	103	103	103	103	100	100	100	100	94	94	94		88	88	88		84	84	84	81
1	94	90	86	83	91	87	84	81	82	79	77		78	75	73		73	72	70	68
2	86	79	73	68	83	77	71	67	72	68	64		69	65	62		65	62	59	57
3	79	70	63	57	76	68	62	56	64	59	55		61	57	53		58	54	51	49
4	72	62	55	49	70	61	54	48	58	52	47		55	50	46		52	48	44	42
5	67	56	48	43	64	54	47	42	52	46	41		49	44	40		47	43	39	37
6	62	50	43	37	60	49	42	37	47	41	36		45	39	35		43	38	34	33
7	57	46	38	33	55	45	38	33	43	37	32		41	36	31		39	34	31	29
8	53	42	35	30	52	41	34	29	39	33	29		38	32	28		36	31	28	26
9	50	38	31	27	48	38	31	26	36	30	26		35	29	25		33	29	25	23
10	47	35	29	24	45	35	28	24	33	28	24		32	27	23		31	26	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8299	8299	8299
5°	8342	8403	8422
10°	8393	8542	8646
15°	8417	8712	8909
20°	8420	8884	9152
25°	8395	9041	9340
30°	8348	9155	9481
35°	8253	9214	9544
40°	8067	9135	9297
45°	7630	8548	8318
50°	6610	7255	6722
55°	5293	6136	5549
60°	4669	5420	5056
65°	4347	4870	5092
70°	4200	4588	5670
75°	4003	4675	6927
80°	3771	5664	9339
85°	3582	9161	16134



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	289.3	3.2	2.8	0°	3004	3004	3004	3004	3004	
10°-20°	859.1	9.4	8.3	5°	3008	3017	3030	3035	3037	287
20°-30°	1355.0	14.8	13.0	15°	2943	2979	3046	3097	3115	831
30°-40°	1677.2	18.3	16.1	25°	2754	2837	2966	3044	3064	1269
40°-50°	1613.9	17.7	15.5	35°	2447	2573	2732	2816	2830	1528
50°-60°	1104.7	12.1	10.6	45°	1953	2093	2188	2167	2129	1486
60°-70°	723.7	7.9	7.0	55°	1099	1237	1274	1212	1152	1013
70°-80°	492.8	5.4	4.7	65°	665	654	745	762	779	665
80°-90°	324.4	3.5	3.1	75°	375	348	438	547	649	398
90°-100°	238.1	2.6	2.3	85°	113	163	289	430	509	117
100°-110°	186.5	2.0	1.8	90°	3	64	204	376	445	9
110°-120°	103.3	1.1	1.0	95°	1	64	219	387	434	1
120°-130°	71.7	0.8	0.7	105°	3	78	219	275	277	3
130°-140°	51.5	0.6	0.5	115°	5	66	124	137	138	5
140°-150°	29.6	0.3	0.3	125°	7	46	94	117	119	6
150°-160°	14.6	0.2	0.1	135°	8	38	75	97	105	6
160°-170°	5.5	0.1	0.1	145°	9	26	52	67	74	6
170°-180°	0.3	0.0	0.0	155°	10	18	32	45	48	5
0°-30°	2503.5	27.4	24.1	165°	11	13	18	24	27	3
0°-40°	4180.7	45.7	40.2	175°	0	0	0	0	0	0
0°-60°	6899.3	75.5	66.3	180°	0	0	0	0	0	0
0°-90°	8440.2	92.3	81.2							
90°-120°	527.9	5.8	5.1							
90°-150°	680.7	7.4	6.5							
90°-180°	701.0	7.7	6.7							
0°-180°	9141.3	100.0	87.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3004	3004	3004	3004	3004
2.5°	3005	3012	3019	3018	3019
5°	3008	3017	3030	3035	3037
7.5°	3004	3017	3039	3054	3058
10°	2992	3011	3045	3072	3082
12.5°	2972	2998	3048	3087	3102
15°	2943	2979	3046	3097	3115
17.5°	2907	2954	3038	3099	3120
20°	2864	2922	3022	3093	3113
22.5°	2812	2883	2999	3073	3094
25°	2754	2837	2966	3044	3064
27.5°	2689	2785	2923	3006	3023
30°	2617	2725	2870	2955	2972
32.5°	2536	2654	2807	2893	2908
35°	2447	2573	2732	2816	2830
37.5°	2347	2479	2642	2717	2724
40°	2237	2371	2533	2585	2578
42.5°	2107	2245	2386	2402	2379
45°	1953	2093	2188	2167	2129
47.5°	1763	1897	1945	1900	1844
50°	1538	1670	1688	1631	1564
52.5°	1297	1443	1458	1395	1332
55°	1099	1237	1274	1212	1152
57.5°	956	1057	1118	1064	1017
60°	845	903	981	944	915
62.5°	749	769	855	844	837
65°	665	654	745	762	779
67.5°	590	555	650	692	736
70°	520	475	568	632	702
72.5°	449	408	498	585	675
75°	375	348	438	547	649
77.5°	306	295	393	518	622
80°	237	248	356	492	587
82.5°	172	205	323	463	546
85°	113	163	289	430	509
87.5°	57	114	248	401	476
90°	3	64	204	376	445
92.5°	0	62	210	385	447
95°	1	64	219	387	434
97.5°	1	67	227	373	407
100°	2	71	231	349	372
102.5°	2	75	229	317	327
105°	3	78	219	275	277
107.5°	3	80	201	230	230
110°	4	80	175	191	190



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4	74	147	159	159
115°	5	66	124	137	138
117.5°	6	59	109	126	127
120°	6	52	100	120	121
122.5°	7	48	98	119	120
125°	7	46	94	117	119
127.5°	7	44	89	116	118
130°	7	43	84	112	115
132.5°	8	40	80	106	112
135°	8	38	75	97	105
137.5°	8	35	69	88	96
140°	8	32	63	83	88
142.5°	9	29	57	74	83
145°	9	26	52	67	74
147.5°	9	23	46	60	66
150°	9	22	41	55	60
152.5°	10	20	37	50	54
155°	10	18	32	45	48
157.5°	10	17	28	39	42
160°	11	15	24	34	37
162.5°	11	14	21	29	32
165°	11	13	18	24	27
167.5°	11	12	16	21	23
170°	11	12	15	17	19
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)