

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: P30017

Luminaire Tested: **WN-454T5A-UNV-EBT2-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P30017
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: WN-454T5A-UNV-EBT2-U
Description: WRAPAROUND SERIES, 4 LAMP T5HO, WITH PRISMATIC ACRYLIC
LENS REFRACTOR & WHITE REFLECTOR
Light Source: FOUR LINEAR FLUORESCENT LAMPS, F54T5 54W - 4400 LUMENS EA
Ballast/Driver: -

Summary

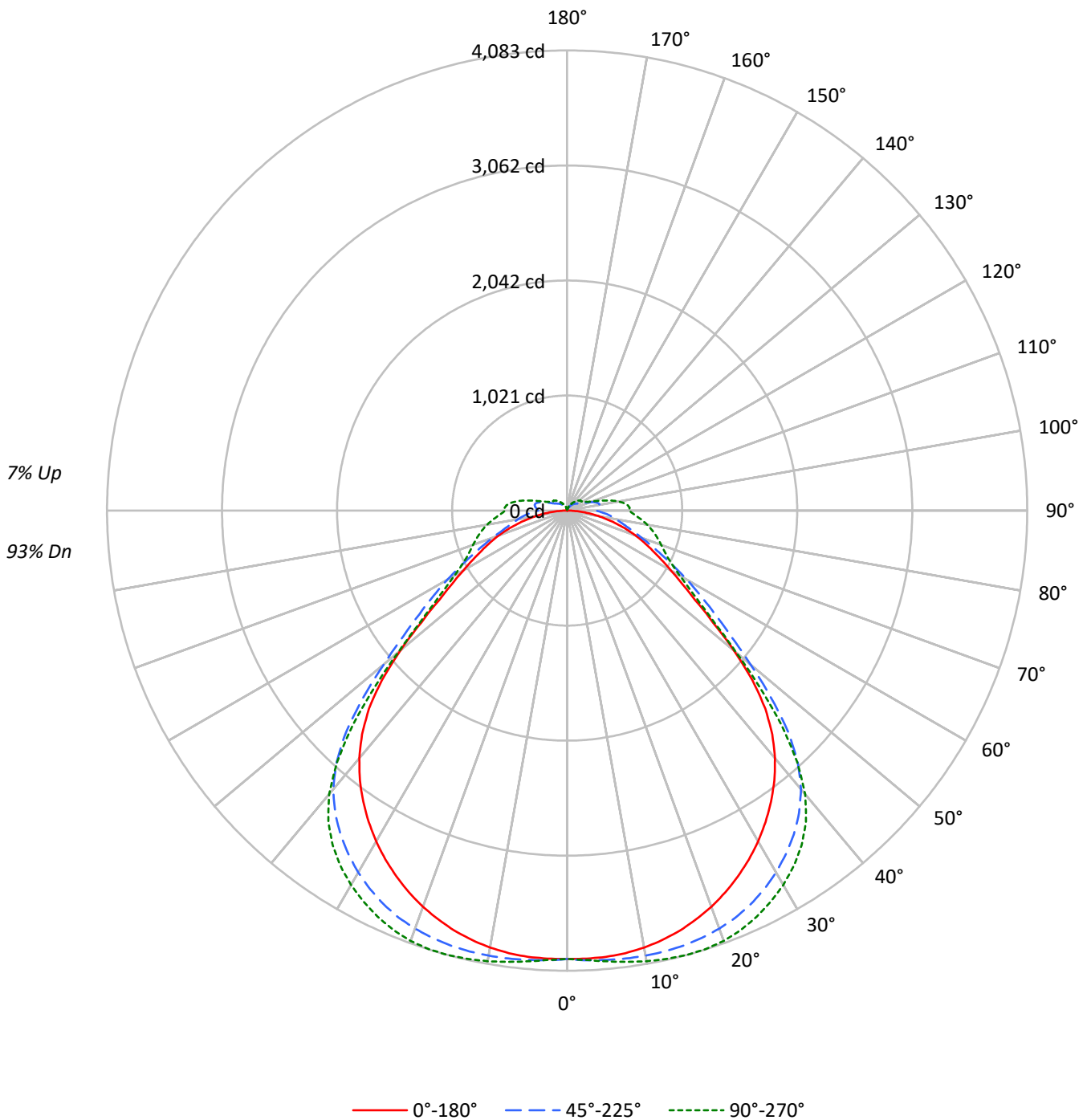
Lumens per Lamp: 4400 (4 lamps)
Luminaire Lumens: 11615.3 lumens
Efficiency: 66.0%
Efficacy: 58.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.4 / 1.41
Luminous Opening: Rectangular w/ Sides (W: 1' x L: 4' x H: 0.21')
CIE Type: Direct

Input Watts (W): 200
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	77	77	77	77	75	75	75	75	71	71	71		67	67	67		63	63	63	61
1	71	68	65	62	68	66	63	61	62	60	58		59	57	55		55	54	53	51
2	65	59	55	51	63	58	54	50	55	51	49		52	49	47		49	47	45	43
3	59	53	48	43	57	51	47	43	49	45	41		46	43	40		44	41	39	37
4	55	47	41	37	53	46	41	37	44	39	36		41	38	35		40	36	34	32
5	50	42	37	32	49	41	36	32	39	35	31		37	34	30		36	32	30	28
6	47	38	32	28	45	37	32	28	36	31	27		34	30	27		33	29	26	25
7	43	35	29	25	42	34	29	25	32	28	24		31	27	24		30	26	23	22
8	40	32	26	23	39	31	26	22	30	25	22		29	24	22		27	24	21	20
9	38	29	24	20	36	29	24	20	27	23	20		26	22	19		25	22	19	18
10	35	27	22	18	34	26	22	18	25	21	18		24	20	18		24	20	17	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10707	10707	10707
5°	10689	10639	10651
10°	10660	10613	10701
15°	10603	10606	10773
20°	10514	10593	10815
25°	10386	10538	10760
30°	10223	10412	10637
35°	9997	10202	10395
40°	9656	9822	9823
45°	8996	8909	8463
50°	7623	7288	6557
55°	6061	5943	5221
60°	5262	4995	4560
65°	4777	4204	4335
70°	4446	3657	4443
75°	3970	3352	4720
80°	3362	3358	5122
85°	2516	3500	5716



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	381.8	3.3	2.2	0°	3979	3979	3979	3979	3979	
10°-20°	1125.8	9.7	6.4	5°	3975	3987	4002	4007	4015	378
20°-30°	1759.7	15.2	10.0	15°	3859	3910	3995	4054	4083	1089
30°-40°	2153.1	18.5	12.2	25°	3583	3696	3854	3943	3976	1651
40°-50°	2043.7	17.6	11.6	35°	3154	3315	3506	3601	3626	1969
50°-60°	1386.9	11.9	7.9	45°	2487	2653	2772	2738	2687	1890
60°-70°	903.3	7.8	5.1	55°	1388	1553	1600	1520	1444	1278
70°-80°	609.2	5.2	3.5	65°	834	813	921	953	985	834
80°-90°	397.2	3.4	2.3	75°	456	430	544	678	807	484
90°-100°	298.0	2.6	1.7	85°	130	196	352	531	626	136
100°-110°	231.5	2.0	1.3	90°	3	78	256	467	549	9
110°-120°	129.7	1.1	0.7	95°	2	80	278	482	540	2
120°-130°	85.8	0.7	0.5	105°	4	95	272	339	343	5
130°-140°	57.2	0.5	0.3	115°	7	81	157	178	183	6
140°-150°	31.7	0.3	0.2	125°	7	53	109	143	149	6
150°-160°	14.6	0.1	0.1	135°	8	39	83	107	117	6
160°-170°	5.1	0.0	0.0	145°	9	25	55	73	81	5
170°-180°	1.0	0.0	0.0	155°	9	16	31	46	50	4
0°-30°	3267.3	28.1	18.6	165°	9	11	17	23	27	3
0°-40°	5420.4	46.7	30.8	175°	9	9	9	8	9	1
0°-60°	8851.0	76.2	50.3	180°	9	9	9	9	9	
0°-90°	10760.7	92.6	61.1							
90°-120°	659.2	5.7	3.7							
90°-150°	833.9	7.2	4.7							
90°-180°	855.0	7.4	4.9							
0°-180°	11615.3	100.0	66.0							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3979	3979	3979	3979	3979
2.5°	3979	3987	3994	3989	3991
5°	3975	3987	4002	4007	4015
7.5°	3961	3979	4009	4027	4039
10°	3937	3964	4010	4041	4060
12.5°	3903	3942	4006	4051	4075
15°	3859	3910	3995	4054	4083
17.5°	3804	3870	3975	4047	4080
20°	3741	3822	3947	4029	4063
22.5°	3667	3765	3908	3996	4028
25°	3583	3696	3854	3943	3976
27.5°	3491	3619	3787	3879	3913
30°	3389	3530	3707	3803	3835
32.5°	3277	3430	3613	3712	3741
35°	3154	3315	3506	3601	3626
37.5°	3020	3183	3381	3465	3481
40°	2869	3034	3228	3288	3285
42.5°	2693	2860	3029	3046	3017
45°	2487	2653	2772	2738	2687
47.5°	2230	2396	2452	2387	2314
50°	1934	2104	2123	2039	1955
52.5°	1632	1813	1832	1747	1665
55°	1388	1553	1600	1520	1444
57.5°	1210	1326	1403	1337	1279
60°	1066	1130	1224	1185	1153
62.5°	942	959	1062	1058	1057
65°	834	813	921	953	985
67.5°	738	691	801	858	932
70°	646	589	700	789	888
72.5°	551	504	614	727	846
75°	456	430	544	678	807
77.5°	365	362	488	637	765
80°	281	304	443	605	721
82.5°	201	252	399	572	673
85°	130	196	352	531	626
87.5°	59	131	300	494	584
90°	3	78	256	467	549
92.5°	1	77	266	480	555
95°	2	80	278	482	540
97.5°	3	84	288	466	508
100°	4	89	293	436	465
102.5°	4	93	289	393	408
105°	4	95	272	339	343
107.5°	5	98	248	284	285
110°	5	93	216	237	238



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6	87	183	202	205
115°	7	81	157	178	183
117.5°	7	70	137	160	165
120°	6	61	125	151	156
122.5°	7	57	117	146	152
125°	7	53	109	143	149
127.5°	7	50	102	136	146
130°	7	47	97	128	138
132.5°	8	43	91	118	130
135°	8	39	83	107	117
137.5°	8	35	76	99	108
140°	8	32	69	90	100
142.5°	8	29	62	81	90
145°	9	25	55	73	81
147.5°	9	23	49	66	73
150°	8	20	42	59	66
152.5°	8	18	36	53	57
155°	9	16	31	46	50
157.5°	9	15	27	40	44
160°	9	13	24	34	37
162.5°	9	12	19	28	31
165°	9	11	17	23	27
167.5°	10	10	14	19	21
170°	10	10	12	15	17
172.5°	10	10	11	11	13
175°	9	9	9	8	9
177.5°	10	10	8	7	9
180°	9	9	9	9	9

(END OF REPORT)