

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: 132P111

Luminaire Tested: **2M-ER-432A125**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 132P111
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2M-ER-432A125
Description: 2 X 4 Surface Modular Luminaire with a one
piece specular aluminum reflector insert
and a .125 pattern 12 acrylic lens.
Light Source: Four-F32T8/35K - 2900 Lumens ea. - 32 Watts ea.
Ballast/Driver: Triad-Utrad B4321120RH Electronic

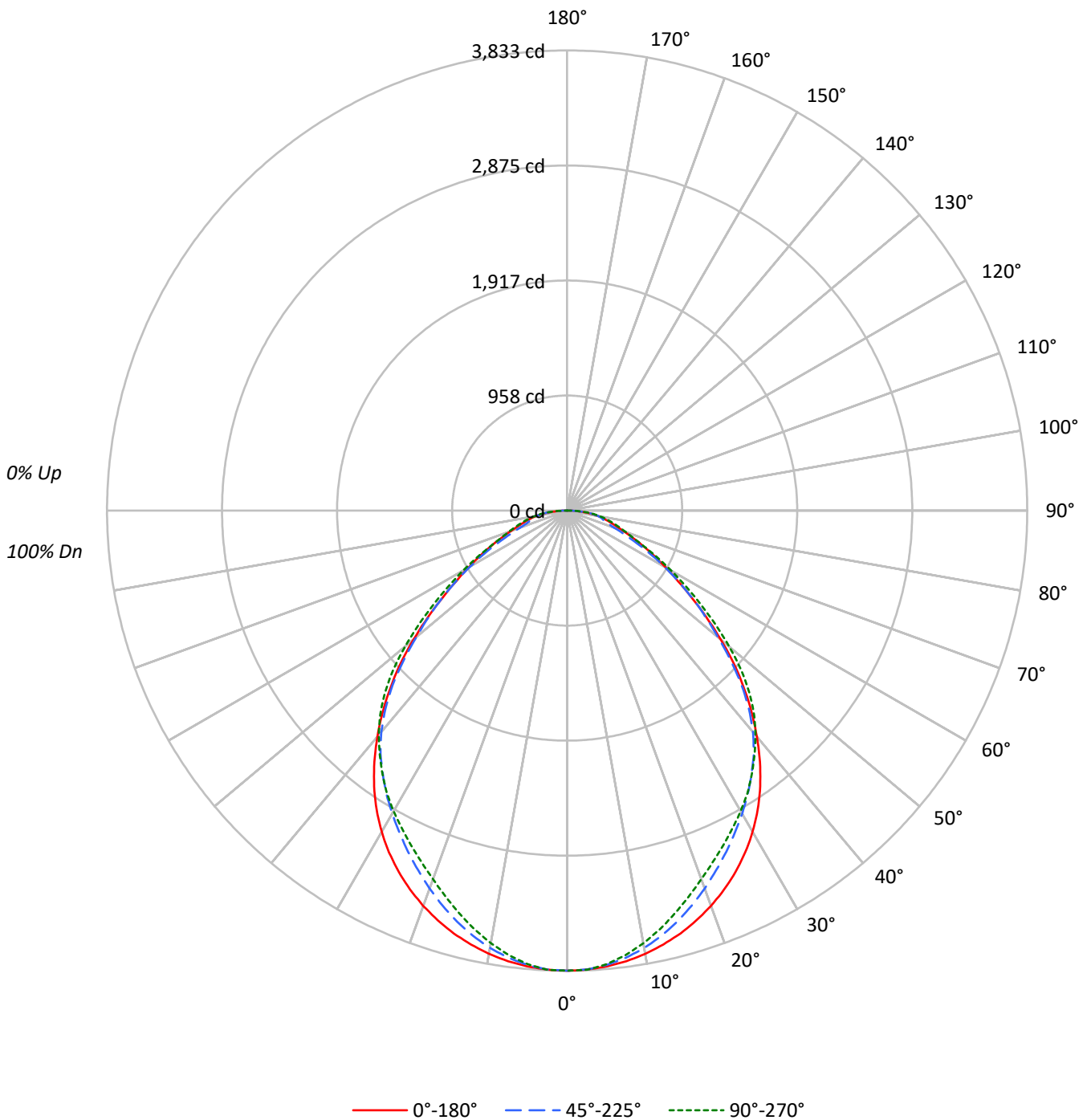
Summary

Lumens per Lamp: 2900 (4 lamps)
Luminaire Lumens: 8461.4 lumens
Efficiency: 72.9%
Efficacy: 78.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.13 / 1.26
Luminous Opening: Rectangular (W 1.79' x L: 3.81' x H: 0')
CIE Type: Direct

Input Watts (W): 108.4
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	0	
RCR																						
0	87	87	87	87	85	85	85	85	81	81	81	78	78	78	74	74	74	74	74	74	73	
1	80	77	74	72	78	75	73	70	72	70	68	69	68	66	67	65	64	64	64	64	63	
2	74	68	64	60	72	67	63	59	64	61	58	62	59	56	60	57	55	55	55	55	54	
3	68	61	55	51	66	59	54	50	57	53	49	55	52	49	54	50	48	48	48	48	46	
4	62	54	48	44	61	53	48	43	52	47	43	50	46	42	48	45	42	42	42	42	40	
5	58	49	43	38	56	48	42	38	47	42	38	45	41	37	44	40	37	37	37	37	35	
6	53	44	38	34	52	44	38	34	42	37	33	41	37	33	40	36	33	33	33	33	31	
7	50	40	34	30	49	40	34	30	39	34	30	38	33	30	37	33	29	29	29	29	28	
8	46	37	31	27	45	37	31	27	36	31	27	35	30	27	34	30	27	27	27	27	25	
9	43	34	28	25	42	34	28	24	33	28	24	32	28	24	31	27	24	24	24	24	23	
10	41	32	26	22	40	31	26	22	31	26	22	30	25	22	29	25	22	22	22	22	21	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6040	6040	6040
5°	6028	6009	5998
10°	5999	5919	5855
15°	5950	5782	5666
20°	5876	5618	5478
25°	5772	5451	5348
30°	5622	5304	5260
35°	5394	5152	5159
40°	5058	4953	5021
45°	4633	4580	4787
50°	4092	4018	4320
55°	3486	3497	3714
60°	2988	2940	3155
65°	2603	2375	2629
70°	2285	1921	2373
75°	2222	1930	2368
80°	2359	2378	2559
85°	2477	2694	2748



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	359.4	4.2	3.1	0°	3833	3833	3833	3833	3833	
10°-20°	999.6	11.8	8.6	5°	3811	3805	3799	3785	3792	362
20°-30°	1457.7	17.2	12.6	15°	3647	3610	3544	3485	3473	1028
30°-40°	1687.9	19.9	14.6	25°	3320	3243	3135	3080	3076	1527
40°-50°	1593.9	18.8	13.7	35°	2804	2731	2678	2665	2682	1747
50°-60°	1163.8	13.8	10.0	45°	2079	2047	2055	2110	2148	1598
60°-70°	678.0	8.0	5.8	55°	1269	1260	1273	1342	1352	1146
70°-80°	368.9	4.4	3.2	65°	698	663	637	686	705	699
80°-90°	152.2	1.8	1.3	75°	365	327	317	346	389	391
90°-100°	0.0	0.0	0.0	85°	137	137	149	156	152	137
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	9
110°-120°	0.0	0.0	0.0	95°	0	0	0	0	0	0
120°-130°	0.0	0.0	0.0	105°	0	0	0	0	0	0
130°-140°	0.0	0.0	0.0	115°	0	0	0	0	0	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	0	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	2816.7	33.3	24.3	165°	0	0	0	0	0	0
0°-40°	4504.5	53.2	38.8	175°	0	0	0	0	0	0
0°-60°	7262.2	85.8	62.6	180°	0	0	0	0	0	0
0°-90°	8461.4	100.0	72.9							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	8461.4	100.0	72.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3833	3833	3833	3833	3833
2.5°	3827	3825	3826	3819	3828
5°	3811	3805	3799	3785	3792
7.5°	3786	3774	3756	3733	3734
10°	3749	3732	3699	3663	3659
12.5°	3702	3676	3628	3578	3571
15°	3647	3610	3544	3485	3473
17.5°	3580	3534	3451	3384	3370
20°	3504	3446	3350	3281	3267
22.5°	3417	3349	3243	3179	3170
25°	3320	3243	3135	3080	3076
27.5°	3212	3129	3025	2984	2983
30°	3090	3003	2915	2885	2891
32.5°	2955	2872	2800	2781	2793
35°	2804	2731	2678	2665	2682
37.5°	2639	2579	2554	2538	2563
40°	2459	2415	2408	2409	2441
42.5°	2274	2240	2241	2270	2305
45°	2079	2047	2055	2110	2148
47.5°	1880	1839	1848	1923	1966
50°	1669	1627	1639	1725	1762
52.5°	1463	1435	1451	1529	1555
55°	1269	1260	1273	1342	1352
57.5°	1096	1096	1100	1158	1168
60°	948	940	933	986	1001
62.5°	817	794	779	829	845
65°	698	663	637	686	705
67.5°	591	548	512	567	595
70°	496	450	417	472	515
72.5°	423	378	353	402	449
75°	365	327	317	346	389
77.5°	315	285	296	303	335
80°	260	246	262	269	282
82.5°	201	197	211	221	221
85°	137	137	149	156	152
87.5°	69	68	68	79	75
90°	0	0	0	0	0
92.5°	0	0	0	0	0
95°	0	0	0	0	0
97.5°	0	0	0	0	0
100°	0	0	0	0	0
102.5°	0	0	0	0	0
105°	0	0	0	0	0
107.5°	0	0	0	0	0
110°	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0	0	0	0	0
115°	0	0	0	0	0
117.5°	0	0	0	0	0
120°	0	0	0	0	0
122.5°	0	0	0	0	0
125°	0	0	0	0	0
127.5°	0	0	0	0	0
130°	0	0	0	0	0
132.5°	0	0	0	0	0
135°	0	0	0	0	0
137.5°	0	0	0	0	0
140°	0	0	0	0	0
142.5°	0	0	0	0	0
145°	0	0	0	0	0
147.5°	0	0	0	0	0
150°	0	0	0	0	0
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
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)