

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: 132P110

Luminaire Tested: **2M-432R25-A W/TRANSLUCENT OVERLAY**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 132P110  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2M-432R25-A W/TRANSLUCENT OVERLAY  
Description: 2 X 4 Surface Modular Luminaire with a .125" thick linear ribbed lens which has a .050" thick translucent overlay. Linear prisms run parallel to lamps, prisms inverted (towards lamp cavity).  
Light Source: Four-F32T8/35K - 2900 Lumens ea. - 32 Watts ea.  
Ballast/Driver: Triad-Utrad B432I120RH Electronic

**Summary**

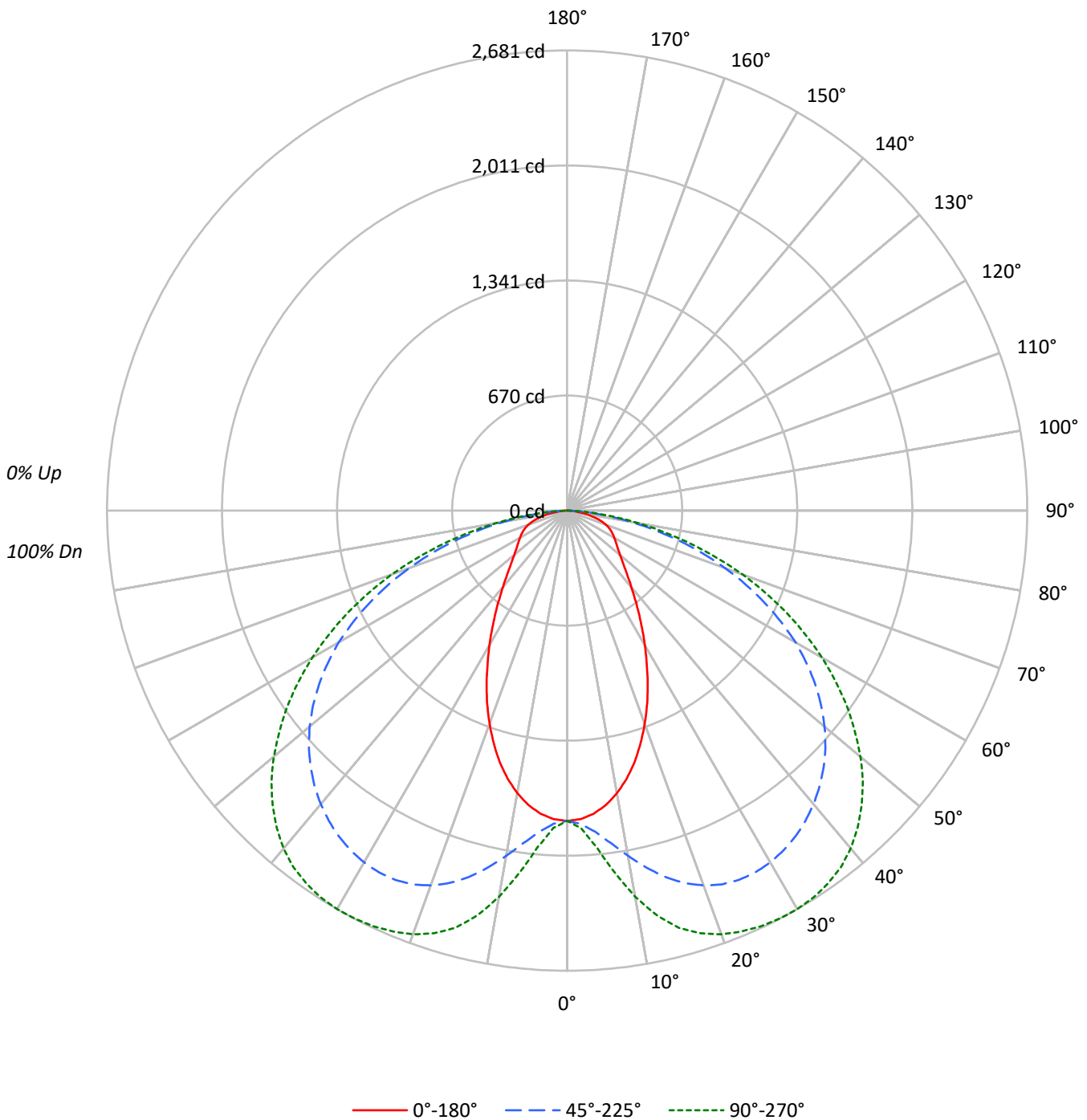
Lumens per Lamp: 2900 (4 lamps)  
Luminaire Lumens: 7425.5 lumens  
Efficiency: 64.0%  
Efficacy: 68.2 lumens/watt  
Spacing Criteria (0/90/45): 0.87 / 1.94 / 1.8  
Luminous Opening: Rectangular (W 1.79' x L: 3.81' x H: 0')  
CIE Type: Direct

Input Watts (W): 108.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	76	76	76	76	74	74	74	74	71	71	71	68	68	68	65	65	65	64
1	69	66	63	61	68	65	62	60	62	60	58	59	58	56	57	56	54	53
2	63	57	53	49	61	56	52	48	54	50	47	52	49	46	50	47	45	44
3	57	50	44	40	55	49	44	40	47	43	39	45	41	38	43	40	38	36
4	52	44	38	34	50	43	38	33	41	37	33	40	36	32	38	35	32	31
5	48	39	33	29	46	38	33	28	37	32	28	36	31	28	34	31	28	26
6	44	35	29	25	43	34	29	25	33	28	24	32	28	24	31	27	24	23
7	40	32	26	22	39	31	25	22	30	25	21	29	25	21	28	24	21	20
8	38	29	23	19	37	28	23	19	27	22	19	26	22	19	26	22	19	17
9	35	26	21	17	34	26	21	17	25	20	17	24	20	17	24	20	17	16
10	33	24	19	15	32	24	19	15	23	18	15	22	18	15	22	18	15	14

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2849	2849	2849
5°	2805	2971	3111
10°	2675	3267	3655
15°	2475	3605	4105
20°	2215	3897	4405
25°	1930	4126	4646
30°	1647	4307	4878
35°	1397	4459	5100
40°	1197	4593	5287
45°	1059	4711	5409
50°	985	4800	5469
55°	970	4849	5470
60°	999	4844	5408
65°	1055	4728	5261
70°	1106	4506	5008
75°	1090	4091	4536
80°	944	3376	3784
85°	597	2242	2622



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	183.3	2.5	1.6	0°	1808	1808	1808	1808	1808	
10°-20°	597.7	8.0	5.2	5°	1773	1805	1878	1944	1967	166
20°-30°	988.2	13.3	8.5	15°	1517	1781	2210	2446	2516	423
30°-40°	1266.9	17.1	10.9	25°	1110	1702	2373	2606	2672	509
40°-50°	1381.8	18.6	11.9	35°	726	1526	2318	2568	2651	456
50°-60°	1294.3	17.4	11.2	45°	475	1250	2114	2358	2427	371
60°-70°	1010.6	13.6	8.7	55°	353	920	1765	1944	1991	318
70°-80°	572.3	7.7	4.9	65°	283	597	1268	1382	1411	279
80°-90°	130.4	1.8	1.1	75°	179	301	672	731	745	186
90°-100°	0.0	0.0	0.0	85°	33	52	124	140	145	42
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	1
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°	1769.2	23.8	15.3	165°	0	0	0	0	0	0
0°-40°	3036.1	40.9	26.2	175°	0	0	0	0	0	0
0°-60°	5712.2	76.9	49.2	180°	0	0	0	0	0	0
0°-90°	7425.5	100.0	64.0							
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°	7425.5	100.0	64.0							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1808	1808	1808	1808	1808
2.5°	1799	1808	1827	1842	1851
5°	1773	1805	1878	1944	1967
7.5°	1730	1802	1954	2079	2128
10°	1672	1796	2042	2223	2284
12.5°	1600	1790	2130	2348	2415
15°	1517	1781	2210	2446	2516
17.5°	1422	1769	2275	2517	2582
20°	1321	1751	2324	2563	2627
22.5°	1217	1730	2357	2592	2654
25°	1110	1702	2373	2606	2672
27.5°	1004	1668	2376	2610	2680
30°	905	1627	2367	2605	2681
32.5°	811	1580	2347	2592	2672
35°	726	1526	2318	2568	2651
37.5°	649	1466	2280	2536	2619
40°	582	1399	2233	2489	2570
42.5°	525	1327	2178	2431	2505
45°	475	1250	2114	2358	2427
47.5°	435	1171	2041	2273	2337
50°	402	1088	1958	2174	2231
52.5°	375	1004	1866	2065	2113
55°	353	920	1765	1944	1991
57.5°	334	836	1654	1816	1856
60°	317	754	1537	1678	1716
62.5°	301	674	1405	1533	1566
65°	283	597	1268	1382	1411
67.5°	264	521	1126	1225	1249
70°	240	446	978	1064	1087
72.5°	212	373	827	898	914
75°	179	301	672	731	745
77.5°	143	231	521	566	578
80°	104	164	372	408	417
82.5°	66	103	238	262	269
85°	33	52	124	140	145
87.5°	8	15	42	52	55
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)