

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: 167P115

Luminaire Tested: **RWW-232MI**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 167P115
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: RWW-232MI
Description: Recessed Wall Wash Luminaire
Light Source: Two - FO32/35K - 2800 Lumens ea. - 32 Watts ea.
Ballast/Driver: Magnetek B2321120RH - Electronic - L.O.B.F. = 88.1%

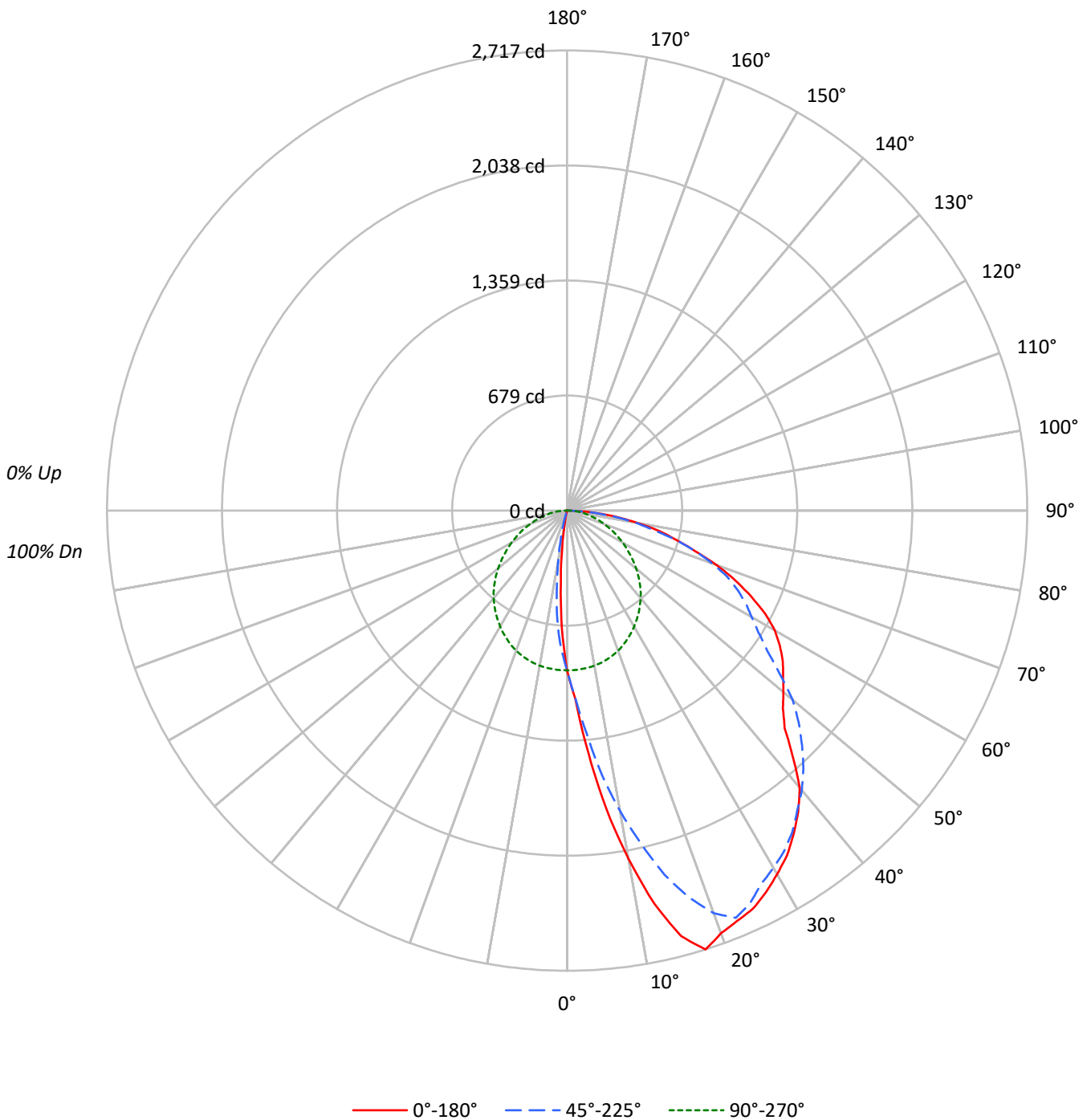
Summary

Lumens per Lamp: 2800 (2 lamps)
Luminaire Lumens: 3901.5 lumens
Efficiency: 69.7%
Efficacy: 68.3 lumens/watt
Spacing Criteria (0/90/45): 1.69 / 1.24 / 1.67
Luminous Opening: Rectangular (W 3.9' x L: 0.65' x H: 0')
CIE Type: Direct

Input Watts (W): 57.1
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	83	83	83	83	81	81	81	81	77	77	77	74	74	74	71	71	71	70
1	75	72	69	66	73	70	67	65	67	65	63	64	63	61	62	60	59	57
2	68	62	57	53	66	61	56	52	58	54	51	56	53	50	54	51	49	47
3	62	54	48	44	60	53	48	43	51	46	42	49	45	42	47	44	41	39
4	56	48	41	37	55	47	41	36	45	40	36	43	39	35	42	38	35	33
5	52	43	36	31	50	42	36	31	40	35	31	39	34	30	37	33	30	28
6	48	38	32	27	46	37	31	27	36	31	27	35	30	26	34	30	26	25
7	44	34	28	24	43	34	28	24	33	27	23	32	27	23	31	26	23	22
8	41	31	25	21	40	31	25	21	30	25	21	29	24	21	28	24	21	19
9	38	29	23	19	37	28	23	19	27	22	19	27	22	19	26	22	18	17
10	36	26	21	17	35	26	21	17	25	20	17	25	20	17	24	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4034	4034	4034
5°	6163	4037	1864
10°	9067	4040	443
15°	11521	4031	44
20°	12093	4007	36
25°	12250	3961	28
30°	12247	3908	25
35°	12180	3844	26
40°	11930	3770	28
45°	10994	3673	24
50°	11095	3541	27
55°	11591	3386	30
60°	12116	3243	34
65°	12118	3088	40
70°	11733	2927	50
75°	10960	2744	66
80°	10397	2710	74
85°	9032	2896	196



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	95.0	2.4	1.7	0°	943	943	943	943	943	
10°-20°	322.5	8.3	5.8	5°	1435	1319	940	659	434	158
20°-30°	540.4	13.9	9.6	15°	2601	2227	910	97	10	722
30°-40°	679.4	17.4	12.1	25°	2595	2556	839	6	6	1193
40°-50°	696.9	17.9	12.4	35°	2332	2317	736	3	5	1456
50°-60°	635.3	16.3	11.3	45°	1817	1961	607	2	4	1431
60°-70°	521.2	13.4	9.3	55°	1554	1442	454	2	4	1387
70°-80°	318.4	8.2	5.7	65°	1197	1111	305	1	4	1179
80°-90°	92.3	2.4	1.6	75°	663	657	166	1	4	710
90°-100°	0.0	0.0	0.0	85°	184	166	59	1	4	198
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	8
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°	957.9	24.6	17.1	165°	0	0	0	0	0	0
0°-40°	1637.3	42.0	29.2	175°	0	0	0	0	0	0
0°-60°	2969.5	76.1	53.0	180°	0	0	0	0	0	0
0°-90°	3901.5	100.0	69.7							
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°	3901.5	100.0	69.7							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	943	943	943	943	943	943	943	943	943
2.5°	1111	1165	1105	1029	943	876	814	769	698
5°	1435	1477	1319	1112	940	800	659	547	434
7.5°	1780	1792	1575	1216	936	715	467	315	232
10°	2087	2076	1803	1345	930	623	300	164	102
12.5°	2378	2350	2014	1481	921	512	180	66	24
15°	2601	2561	2227	1602	910	399	97	14	10
17.5°	2717	2700	2395	1707	896	309	35	8	9
20°	2656	2671	2529	1802	880	232	10	7	8
22.5°	2623	2619	2603	1891	861	167	8	6	7
25°	2595	2594	2556	1978	839	117	6	5	6
27.5°	2542	2553	2483	2050	816	75	5	4	5
30°	2479	2484	2436	2093	791	39	5	4	5
32.5°	2415	2422	2384	2124	764	17	3	3	5
35°	2332	2345	2317	2136	736	10	3	3	5
37.5°	2241	2251	2232	2116	706	9	3	3	6
40°	2136	2154	2155	2035	675	7	2	3	5
42.5°	1973	2038	2065	1927	642	6	2	3	4
45°	1817	1864	1961	1830	607	5	2	3	4
47.5°	1727	1735	1854	1747	570	4	2	2	4
50°	1667	1645	1737	1659	532	3	2	2	4
52.5°	1607	1577	1580	1566	493	2	2	2	4
55°	1554	1515	1442	1462	454	2	2	2	4
57.5°	1490	1451	1340	1365	416	2	1	2	4
60°	1416	1381	1258	1259	379	1	2	2	4
62.5°	1318	1300	1189	1141	341	1	2	2	4
65°	1197	1185	1111	1031	305	1	1	2	4
67.5°	1073	1060	1024	910	269	1	2	2	4
70°	938	931	912	788	234	1	1	2	4
72.5°	790	781	789	684	199	1	1	2	4
75°	663	647	657	593	166	1	1	2	4
77.5°	558	543	515	494	135	0	1	2	4
80°	422	409	406	383	110	0	1	2	3
82.5°	302	287	282	265	90	0	1	2	3
85°	184	166	166	163	59	0	1	2	4
87.5°	60	46	54	61	27	0	1	2	3
90°	0	0	0	0	0	0	0	0	0
92.5°	0	0	0	0	0	0	0	0	0
95°	0	0	0	0	0	0	0	0	0
97.5°	0	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0	0
102.5°	0	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0	0
107.5°	0	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	0	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0	0
117.5°	0	0	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0	0	0
122.5°	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0
127.5°	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0
132.5°	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0
137.5°	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0

(END OF REPORT)