

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: P30453

Luminaire Tested: **ART-2ARC-WO-232L-UNV-EB81**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P30453
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: ART-2ARC-WO-232L-UNV-EB81
Description: METALUX RECESSED TROFFER & PARABOLIC FLUORESCENT 2X4 RETROFIT KIT WITH WHITE OPTICS REFLECTOR, DOORFRAME AND DUAL LENS APPEARANCE, KIT WAS INSTALLED IN A GT TROFFER HOUSING
Light Source: (2) TWO LINEAR FLUORESCENT LAMPS, F32T8 32W - 2850 LUMENS EA, 3500K
Ballast/Driver: -
GE232MAX-N/ULTRA

Summary

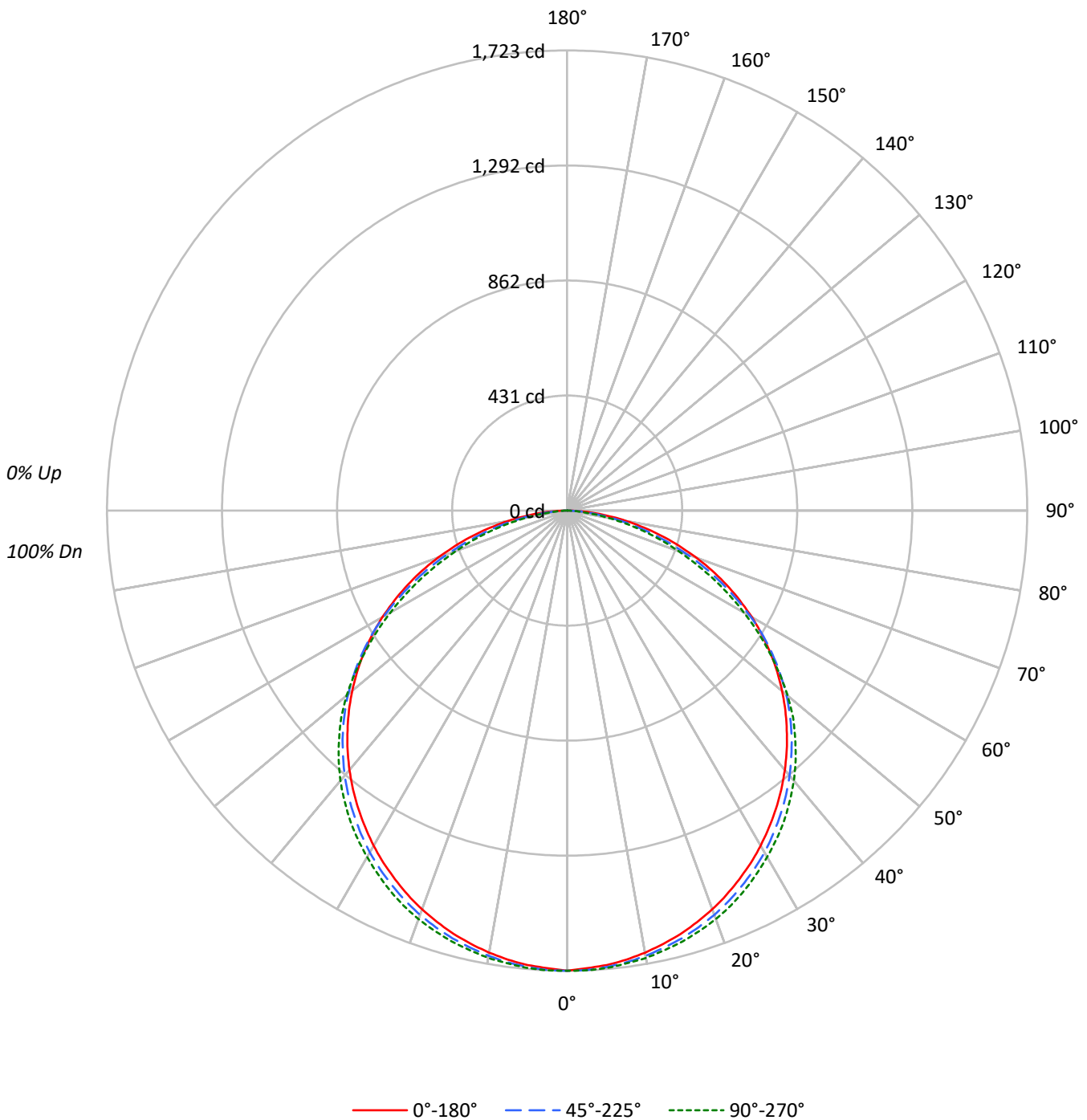
Lumens per Lamp: 2850 (2 lamps)
Luminaire Lumens: 5017.4 lumens
Efficiency: 88.0%
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1.75' x L: 3.75' x H: 0')
CIE Type: Direct

Input Watts (W): 53.5
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	105	105	105	105	102	102	102	102	98	98	98	94	94	94	90	90	90	88				
1	96	92	88	84	93	90	86	83	86	83	80	82	80	78	79	77	76	74				
2	87	80	74	69	85	78	72	68	75	70	66	72	68	65	69	66	63	61				
3	79	70	63	57	77	68	62	56	66	60	55	63	58	54	61	57	53	51				
4	72	62	54	48	70	61	53	48	58	52	47	56	51	46	54	50	46	44				
5	67	55	47	41	65	54	47	41	52	46	41	50	45	40	49	44	40	38				
6	61	50	42	36	60	49	41	36	47	40	35	46	40	35	44	39	35	33				
7	57	45	37	32	55	44	37	32	43	36	31	42	36	31	40	35	31	29				
8	53	41	33	28	52	40	33	28	39	33	28	38	32	28	37	32	28	26				
9	49	38	30	25	48	37	30	25	36	30	25	35	29	25	34	29	25	23				
10	46	35	28	23	45	34	27	23	33	27	23	32	27	23	32	26	23	21				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2826	2826	2826
5°	2812	2824	2830
10°	2800	2820	2833
15°	2787	2815	2836
20°	2774	2812	2842
25°	2758	2805	2841
30°	2744	2799	2837
35°	2729	2787	2837
40°	2715	2775	2828
45°	2698	2758	2802
50°	2682	2733	2751
55°	2657	2685	2642
60°	2621	2601	2510
65°	2558	2464	2336
70°	2460	2288	2124
75°	2326	2047	1870
80°	2125	1729	1474
85°	1844	1186	828



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	162.8	3.2	2.9	0°	1723	1723	1723	1723	1723	
10°-20°	467.4	9.3	8.2	5°	1708	1710	1715	1714	1719	162
20°-30°	713.4	14.2	12.5	15°	1641	1645	1658	1664	1670	463
30°-40°	869.9	17.3	15.3	25°	1524	1531	1550	1561	1570	703
40°-50°	915.3	18.2	16.1	35°	1363	1372	1392	1407	1417	853
50°-60°	832.2	16.6	14.6	45°	1163	1172	1189	1203	1208	898
60°-70°	626.1	12.5	11.0	55°	929	932	939	929	924	830
70°-80°	346.3	6.9	6.1	65°	659	655	635	611	602	651
80°-90°	83.5	1.7	1.5	75°	367	352	323	301	295	387
90°-100°	0.5	0.0	0.0	85°	98	81	63	49	44	106
100°-110°	0.0	0.0	0.0	90°	6	4	5	2	1	7
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°	1343.6	26.8	23.6	165°	0	0	0	0	0	0
0°-40°	2213.5	44.1	38.8	175°	0	0	0	0	0	0
0°-60°	3961.0	78.9	69.5	180°	0	0	0	0	0	0
0°-90°	5016.9	100.0	88.0							
90°-120°	0.5	0.0	0.0							
90°-150°	0.5	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	5017.4	100.0	88.0							



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CATALOG NUMBER: ART-2ARC-WO-232L-UNV-EB81

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1723	1723	1723	1723	1723
2.5°	1715	1717	1722	1720	1723
5°	1708	1710	1715	1714	1719
7.5°	1696	1699	1706	1706	1710
10°	1681	1684	1693	1695	1701
12.5°	1662	1666	1676	1680	1686
15°	1641	1645	1658	1664	1670
17.5°	1616	1621	1636	1643	1650
20°	1589	1595	1611	1620	1628
22.5°	1558	1563	1582	1593	1601
25°	1524	1531	1550	1561	1570
27.5°	1488	1495	1515	1527	1535
30°	1449	1457	1478	1490	1498
32.5°	1407	1416	1436	1451	1459
35°	1363	1372	1392	1407	1417
37.5°	1317	1325	1345	1362	1370
40°	1268	1277	1296	1314	1321
42.5°	1217	1225	1243	1259	1266
45°	1163	1172	1189	1203	1208
47.5°	1108	1115	1131	1142	1147
50°	1051	1057	1071	1078	1078
52.5°	991	996	1006	1005	1002
55°	929	932	939	929	924
57.5°	865	868	869	852	846
60°	799	800	793	774	765
62.5°	729	728	713	692	684
65°	659	655	635	611	602
67.5°	587	581	556	531	521
70°	513	507	477	451	443
72.5°	439	429	398	374	369
75°	367	352	323	301	295
77.5°	294	276	251	230	223
80°	225	205	183	164	156
82.5°	159	139	118	102	94
85°	98	81	63	49	44
87.5°	42	29	22	18	19
90°	6	4	5	2	1
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



TEST NUMBER: P30453

CATALOG NUMBER: ART-2ARC-WO-232L-UNV-EB81

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)