

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: P30441

Luminaire Tested: **ART-2CRK-WO-232-UNV-EB81**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P30441
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: ART-2CRK-WO-232-UNV-EB81
Description: METALUX COMMERCIAL SERIES FLUORESCENT 2X4 RETROFIT KIT
WITH WHITE OPTICS REFLECTOR, EXISTING TROFFER PRISMATIC A LENS AND
DOORFRAME REMAIN, KIT WAS INSTALLED IN A 2GR8 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: 5179.7 lumens
Efficiency: 90.9%
Efficacy: 97.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.37 / 1.39
Luminous Opening: Rectangular (W 1.75' x L: 3.79' x H: 0')
CIE Type: Direct

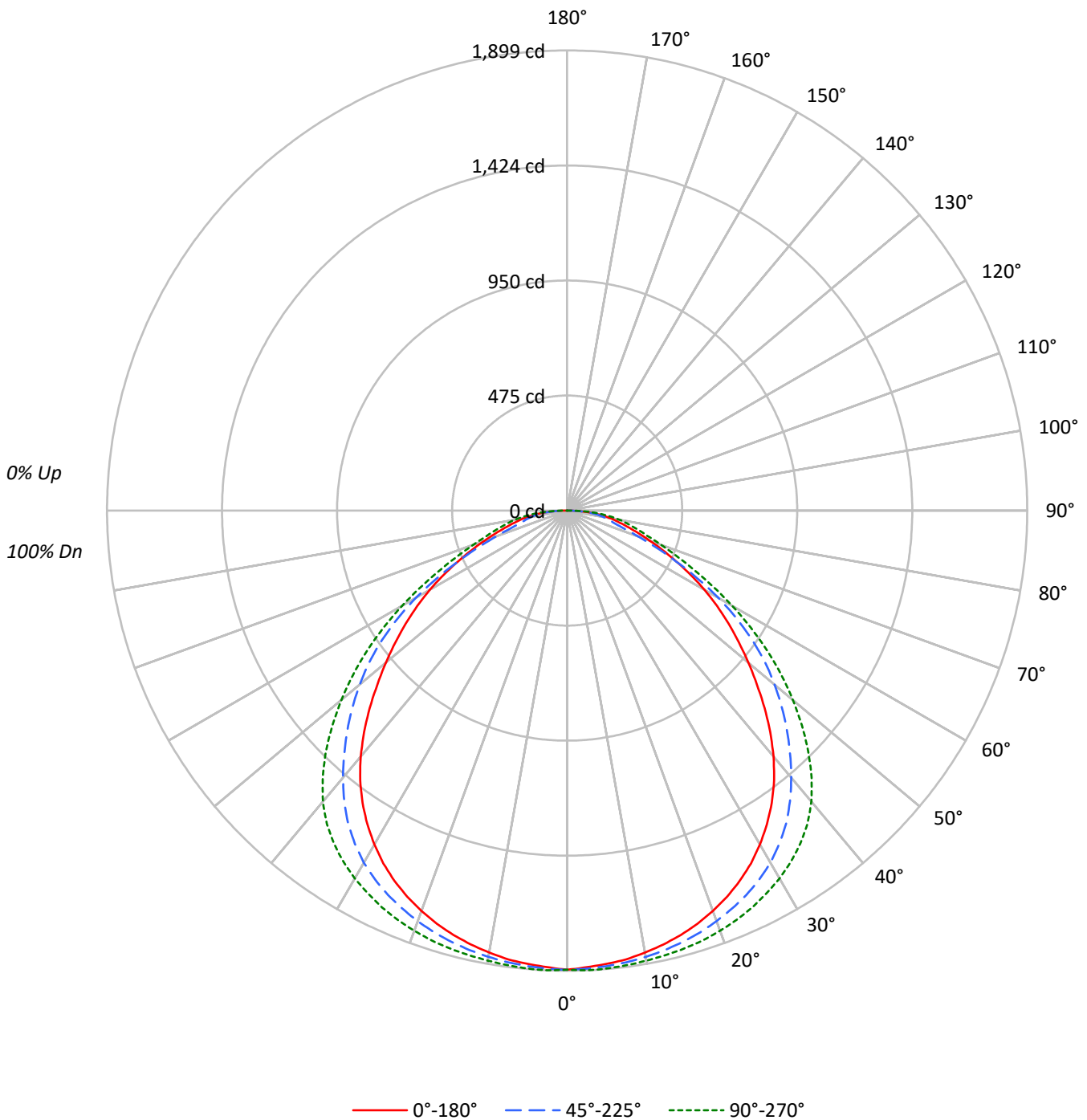
Input Watts (W): 53.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	106	106	106	106	101	101	101		97	97	97		93	93	93	91
1	99	95	91	88	97	93	90	87	89	86	84		86	83	81		82	81	79	77
2	91	83	77	72	88	82	76	72	79	74	70		76	72	68		73	70	67	65
3	83	74	66	61	81	72	66	60	70	64	59		67	62	58		65	61	57	55
4	76	66	58	52	74	64	57	51	62	56	51		60	54	50		58	53	49	47
5	70	59	51	45	68	58	50	45	56	49	44		54	48	44		52	47	43	41
6	65	53	45	39	63	52	45	39	50	44	39		49	43	38		47	42	38	36
7	60	48	40	35	59	47	40	35	46	39	34		45	39	34		43	38	34	32
8	56	44	36	31	55	43	36	31	42	35	31		41	35	31		40	34	30	29
9	52	40	33	28	51	40	33	28	39	32	28		38	32	28		37	31	27	26
10	49	37	30	25	48	37	30	25	36	29	25		35	29	25		34	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3074	3074	3074
5°	3058	3073	3089
10°	3051	3080	3107
15°	3045	3095	3142
20°	3035	3113	3185
25°	3018	3132	3234
30°	2980	3143	3284
35°	2915	3121	3323
40°	2806	3047	3320
45°	2643	2943	3230
50°	2463	2821	3069
55°	2299	2642	2851
60°	2122	2336	2553
65°	1908	1904	2211
70°	1717	1475	1945
75°	1611	1260	1880
80°	1691	1420	2055
85°	1787	1675	2308



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	179.5	3.5	3.1	0°	1895	1895	1895	1895	1895	
10°-20°	520.3	10.0	9.1	5°	1878	1882	1887	1888	1897	179
20°-30°	805.4	15.5	14.1	15°	1813	1822	1843	1857	1871	512
30°-40°	982.6	19.0	17.2	25°	1686	1706	1750	1787	1807	776
40°-50°	987.0	19.1	17.3	35°	1472	1504	1576	1645	1678	918
50°-60°	816.8	15.8	14.3	45°	1152	1195	1283	1370	1408	888
60°-70°	514.8	9.9	9.0	55°	813	846	934	978	1008	727
70°-80°	267.5	5.2	4.7	65°	497	478	496	543	576	496
80°-90°	105.8	2.0	1.9	75°	257	234	201	275	300	277
90°-100°	0.0	0.0	0.0	85°	96	88	90	119	124	103
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	1505.2	29.1	26.4							
0°-40°	2487.8	48.0	43.6							
0°-60°	4291.6	82.9	75.3							
0°-90°	5179.7	100.0	90.9							
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°	5179.7	100.0	90.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1895	1895	1895	1895	1895
2.5°	1886	1889	1892	1891	1899
5°	1878	1882	1887	1888	1897
7.5°	1868	1873	1880	1883	1892
10°	1852	1859	1870	1876	1886
12.5°	1834	1842	1858	1868	1879
15°	1813	1822	1843	1857	1871
17.5°	1788	1800	1825	1844	1860
20°	1758	1773	1803	1828	1845
22.5°	1725	1741	1778	1810	1828
25°	1686	1706	1750	1787	1807
27.5°	1642	1665	1717	1760	1781
30°	1591	1619	1678	1729	1753
32.5°	1535	1565	1630	1691	1718
35°	1472	1504	1576	1645	1678
37.5°	1403	1435	1511	1590	1629
40°	1325	1360	1439	1524	1568
42.5°	1240	1278	1362	1451	1493
45°	1152	1195	1283	1370	1408
47.5°	1062	1110	1202	1282	1315
50°	976	1024	1118	1187	1216
52.5°	893	936	1030	1086	1114
55°	813	846	934	978	1008
57.5°	733	754	830	864	898
60°	654	661	720	752	787
62.5°	574	568	606	643	677
65°	497	478	496	543	576
67.5°	426	399	396	456	486
70°	362	331	311	383	410
72.5°	305	277	244	323	348
75°	257	234	201	275	300
77.5°	216	195	174	232	259
80°	181	159	152	195	220
82.5°	141	123	125	159	176
85°	96	88	90	119	124
87.5°	51	49	49	70	71
90°	0	0	0	0	0

(END OF REPORT)