

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: P30488

Luminaire Tested: **RFK 232 ARCHITECTURAL NARROW LAMP SPACING**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P30488  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: RFK 232 ARCHITECTURAL NARROW LAMP SPACING  
Description: METALUX ARCHITECTURAL LINEAR FLUORESCENT RECESSED 2X4 RETROFIT  
KIT CENTER LAMPS WHITE REFLECTOR AND CENTER BASKET  
Light Source: (2)BIPIN T8 DOUBLE ENDED LINEAR FLUORESCENT LAMP 3500K  
GE ECOLUX F32T8-SP50-ECO 32 WATTS  
Ballast/Driver: GE ELECTRONIC BALLAST  
GE232MAX-N ULTRA

**Summary**

Lumens per Lamp: 3100 (2 lamps)  
Luminaire Lumens: 5289.9 lumens  
Efficiency: 85.3%  
Efficacy: 93.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.33 / 1.45  
Luminous Opening: Rectangular (W 1.75' x L: 3.83' x H: 0')  
CIE Type: Direct

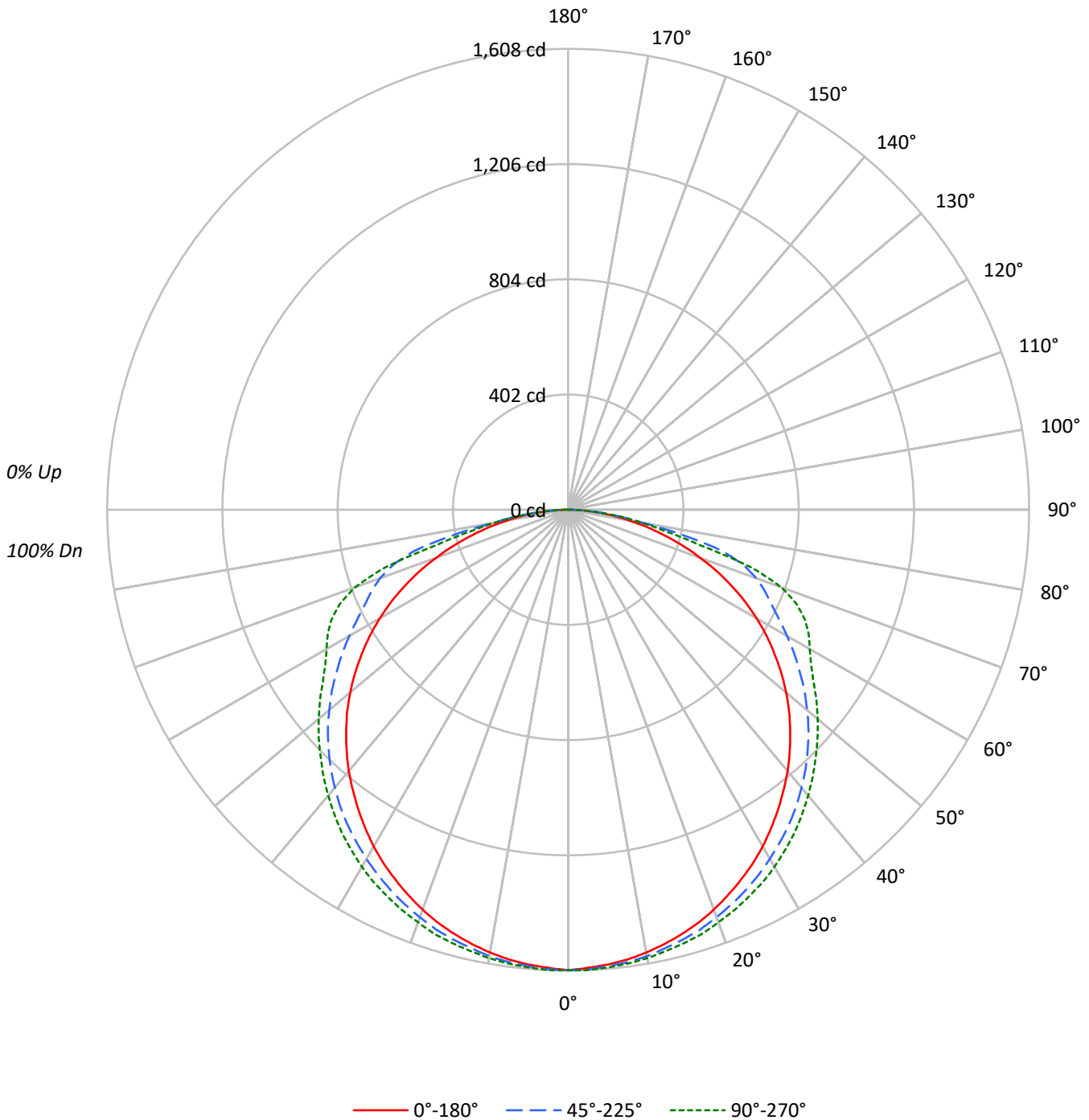
Input Watts (W): 56.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P30488

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### Luminous Intensity Polar Plot





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CATALOG NUMBER: RFK 232 ARCHITECTURAL NARROW LAMP SPACING

**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	102	102	102	102	99	99	99	99	95	95	95	91	91	91	87	87	87	85
1	92	87	84	80	90	86	82	79	82	79	76	78	76	74	75	73	72	70
2	83	75	69	64	81	74	68	63	71	66	62	68	64	60	65	62	59	57
3	75	66	58	52	73	64	57	52	62	56	51	59	54	50	57	53	49	47
4	68	58	50	44	66	56	49	43	54	48	43	52	47	42	50	45	41	40
5	63	51	43	37	61	50	43	37	48	42	37	47	41	36	45	40	36	34
6	58	46	38	32	56	45	38	32	43	37	32	42	36	31	41	35	31	29
7	54	41	34	28	52	41	33	28	39	33	28	38	32	28	37	32	27	26
8	50	38	30	25	48	37	30	25	36	29	25	35	29	25	34	28	24	23
9	46	35	27	22	45	34	27	22	33	27	22	32	26	22	31	26	22	20
10	43	32	25	20	42	31	25	20	31	24	20	30	24	20	29	24	20	18

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

	0°	45°	90°
0°	2579	2579	2579
5°	2566	2575	2582
10°	2556	2578	2589
15°	2547	2578	2600
20°	2536	2584	2616
25°	2523	2594	2638
30°	2514	2607	2666
35°	2501	2629	2695
40°	2495	2652	2727
45°	2485	2682	2771
50°	2476	2716	2836
55°	2459	2758	2921
60°	2436	2830	3122
65°	2388	2969	3463
70°	2299	3275	3711
75°	2170	3453	2939
80°	1996	2449	2421
85°	1823	1970	1915



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	152.1	2.9	2.5	0°	1607	1607	1607	1607	1607	
10°-20°	438.3	8.3	7.1	5°	1593	1595	1599	1603	1603	151
20°-30°	674.8	12.8	10.9	15°	1533	1539	1552	1565	1565	433
30°-40°	836.1	15.8	13.5	25°	1425	1437	1465	1490	1490	657
40°-50°	905.4	17.1	14.6	35°	1277	1299	1342	1376	1376	799
50°-60°	878.4	16.6	14.2	45°	1095	1129	1182	1221	1221	845
60°-70°	778.3	14.7	12.6	55°	879	927	986	1044	1044	786
70°-80°	498.6	9.4	8.0	65°	629	691	782	912	912	621
80°-90°	127.9	2.4	2.1	75°	350	432	557	474	474	371
90°-100°	0.1	0.0	0.0	85°	99	110	107	104	104	104
100°-110°	0.0	0.0	0.0	90°	1	1	1	0	0	6
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°	1265.2	23.9	20.4	165°	0	0	0	0	0	0
0°-40°	2101.3	39.7	33.9	175°	0	0	0	0	0	0
0°-60°	3885.0	73.4	62.7	180°	0	0	0	0	0	0
<b>0°-90°</b>	<b>5289.8</b>	<b>100.0</b>	<b>85.3</b>							
90°-120°	0.1	0.0	0.0							
90°-150°	0.1	0.0	0.0							
<b>90°-180°</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>							
0°-180°	5289.9	100.0	85.3							



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CATALOG NUMBER: RFK 232 ARCHITECTURAL NARROW LAMP SPACING

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1607	1607	1607	1607	1607
2.5°	1600	1602	1605	1608	1608
5°	1593	1595	1599	1603	1603
7.5°	1583	1586	1592	1597	1597
10°	1569	1573	1582	1589	1589
12.5°	1552	1557	1567	1577	1577
15°	1533	1539	1552	1565	1565
17.5°	1511	1519	1535	1552	1552
20°	1485	1493	1513	1532	1532
22.5°	1456	1467	1490	1513	1513
25°	1425	1437	1465	1490	1490
27.5°	1393	1407	1437	1467	1467
30°	1357	1373	1407	1439	1439
32.5°	1317	1336	1375	1408	1408
35°	1277	1299	1342	1376	1376
37.5°	1234	1258	1306	1340	1340
40°	1191	1218	1266	1302	1302
42.5°	1144	1174	1226	1263	1263
45°	1095	1129	1182	1221	1221
47.5°	1046	1082	1137	1180	1180
50°	992	1032	1088	1136	1136
52.5°	938	981	1039	1091	1091
55°	879	927	986	1044	1044
57.5°	821	872	935	1004	1004
60°	759	814	882	973	973
62.5°	696	755	829	946	946
65°	629	691	782	912	912
67.5°	561	628	743	863	863
70°	490	562	698	791	791
72.5°	420	496	640	671	671
75°	350	432	557	474	474
77.5°	283	377	411	348	348
80°	216	315	265	262	262
82.5°	155	224	181	180	180
85°	99	110	107	104	104
87.5°	42	46	42	37	37
90°	1	1	1	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



TEST NUMBER: P30488

CATALOG NUMBER: RFK 232 ARCHITECTURAL NARROW LAMP SPACING

**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)