

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: P30815

Luminaire Tested: **2GR8-232A19/156-UNV-EB81**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P30815  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2GR8-232A19/156-UNV-EB81  
Description: METALUX 2' X 4' COMMERCIAL TROFFER W/ ACRYLIC PRISMATIC LENS, TYPE  
19, 0.156" THK  
Light Source: (2) DOUBLE BIPIN T8 LINEAR FLUORESCENT LAMPS  
Ballast/Driver: -  
GE232MAX-N/ULTRA

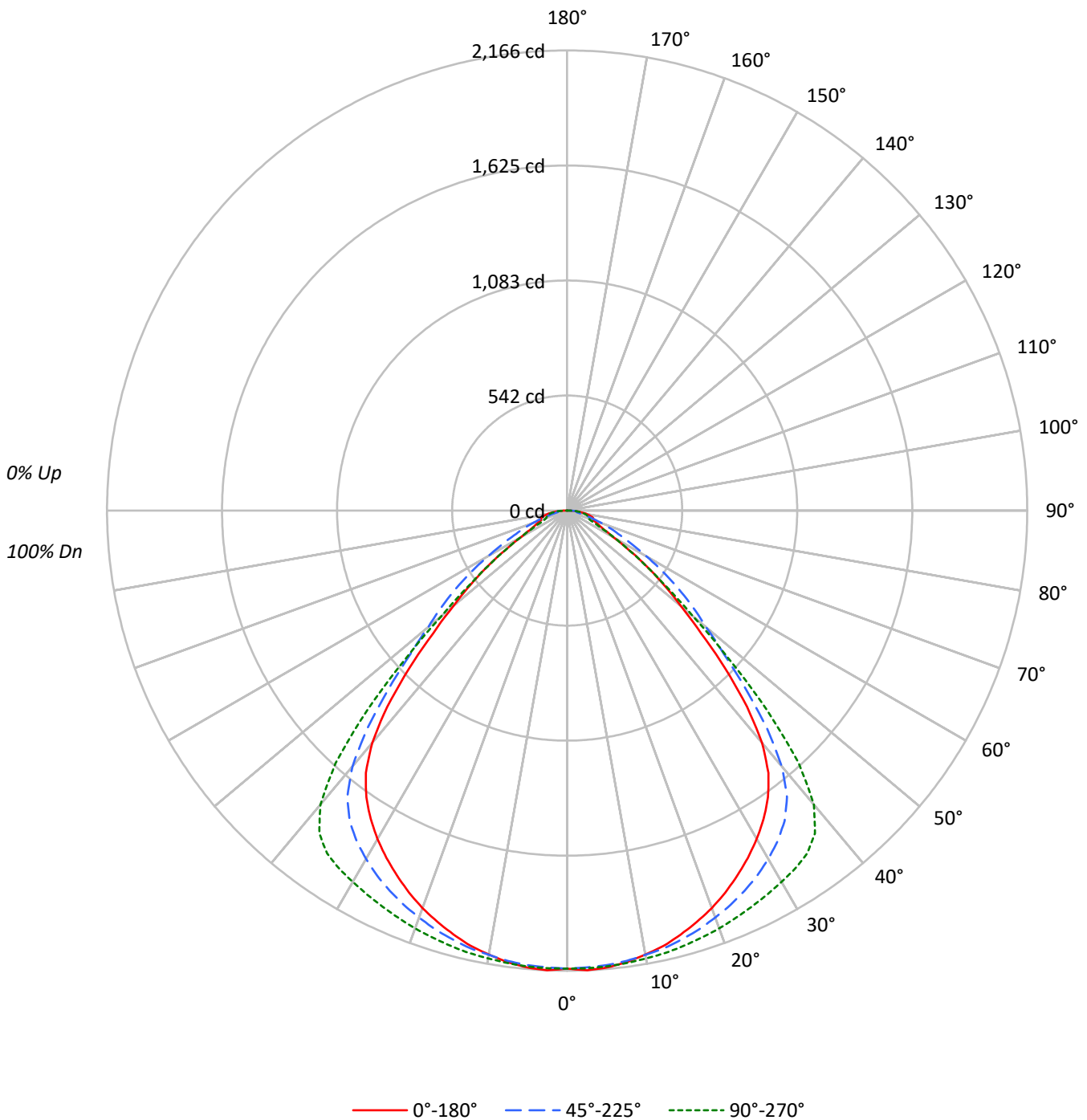
**Summary**

Lumens per Lamp: 3100 (2 lamps)  
Luminaire Lumens: 4760.6 lumens  
Efficiency: 76.8%  
Efficacy: 90.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.41 / 1.32  
Luminous Opening: Rectangular (W 1.75' x L: 3.83' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 52.4  
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

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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	91	91	91	91	89	89	89	89	85	85	85	82	82	82	78	78	78	77
1	85	82	79	77	83	80	78	75	77	75	73	74	72	71	71	70	69	67
2	78	73	69	65	77	72	68	64	69	66	63	67	64	61	64	62	60	58
3	73	66	60	56	71	64	59	55	62	58	54	60	56	53	58	55	53	51
4	67	59	53	49	65	58	52	48	56	51	48	54	50	47	53	49	46	45
5	62	53	47	43	61	53	47	42	51	46	42	50	45	42	48	44	41	40
6	58	49	42	38	56	48	42	38	47	41	37	45	41	37	44	40	37	35
7	54	44	38	34	53	44	38	34	43	37	34	42	37	33	41	36	33	32
8	50	41	35	31	49	40	34	30	39	34	30	38	34	30	37	33	30	29
9	47	38	32	28	46	37	31	28	36	31	28	35	31	27	35	30	27	26
10	44	35	29	25	43	34	29	25	34	29	25	33	28	25	32	28	25	24

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

	0°	45°	90°
0°	3459	3459	3459
5°	3477	3460	3469
10°	3457	3459	3487
15°	3432	3470	3523
20°	3400	3480	3574
25°	3355	3497	3642
30°	3307	3507	3739
35°	3228	3495	3859
40°	2989	3293	3785
45°	2387	2698	3025
50°	1742	2132	1920
55°	1276	1785	1267
60°	812	1377	818
65°	634	1044	547
70°	615	812	497
75°	775	546	614
80°	878	444	758
85°	902	847	939



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	204.4	4.3	3.3	0°	2156	2156	2156	2156	2156	
10°-20°	590.2	12.4	9.5	5°	2159	2148	2148	2147	2154	205
20°-30°	910.6	19.1	14.7	15°	2066	2067	2089	2106	2121	583
30°-40°	1115.5	23.4	18.0	25°	1895	1916	1975	2028	2057	873
40°-50°	940.3	19.8	15.2	35°	1648	1685	1784	1913	1970	1021
50°-60°	520.0	10.9	8.4	45°	1052	1180	1189	1353	1333	810
60°-70°	273.7	5.7	4.4	55°	456	570	638	622	453	411
70°-80°	148.6	3.1	2.4	65°	167	314	275	333	144	174
80°-90°	57.3	1.2	0.9	75°	125	172	88	184	99	126
90°-100°	0.0	0.0	0.0	85°	49	70	46	61	51	52
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°	1705.2	35.8	27.5							
0°-40°	2820.7	59.3	45.5							
0°-60°	4281.0	89.9	69.0							
0°-90°	4760.6	100.0	76.8							
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°	4760.6	100.0	76.8							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2156	2156	2156	2156	2156
2.5°	2166	2155	2152	2150	2156
5°	2159	2148	2148	2147	2154
7.5°	2144	2135	2138	2139	2148
10°	2122	2116	2123	2130	2140
12.5°	2099	2095	2110	2120	2133
15°	2066	2067	2089	2106	2121
17.5°	2030	2036	2067	2090	2107
20°	1991	2001	2038	2071	2093
22.5°	1946	1960	2009	2052	2075
25°	1895	1916	1975	2028	2057
27.5°	1843	1867	1937	2005	2038
30°	1785	1812	1893	1977	2018
32.5°	1721	1753	1844	1948	1998
35°	1648	1685	1784	1913	1970
37.5°	1556	1602	1700	1855	1916
40°	1427	1490	1572	1753	1807
42.5°	1254	1347	1393	1583	1613
45°	1052	1180	1189	1353	1333
47.5°	856	1000	1001	1112	1030
50°	698	832	854	899	769
52.5°	573	692	745	743	587
55°	456	570	638	622	453
57.5°	344	471	530	528	344
60°	253	397	429	452	255
62.5°	199	348	346	386	190
65°	167	314	275	333	144
67.5°	147	278	222	288	118
70°	131	239	173	253	106
72.5°	130	201	127	220	101
75°	125	172	88	184	99
77.5°	109	146	62	149	93
80°	95	117	48	116	82
82.5°	73	91	45	87	69
85°	49	70	46	61	51
87.5°	23	40	35	35	28
90°	0	0	0	0	0

(END OF REPORT)