

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: P30952

Luminaire Tested: **2GR8-417A19/156-UNV-EB81**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P30952  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2GR8-417A19/156-UNV-EB81  
Description: METALUX 2' X 2' COMMERCIAL TROFFER W/ ACRYLIC PRISMATIC LENS, TYPE  
19, 0.156" THK  
Light Source: (4) T8 LINEAR FLUORESCENT LAMPS 3500K  
Ballast/Driver: -  
QUICKTRONICS QTP4x32T8/UNV ISN-SC

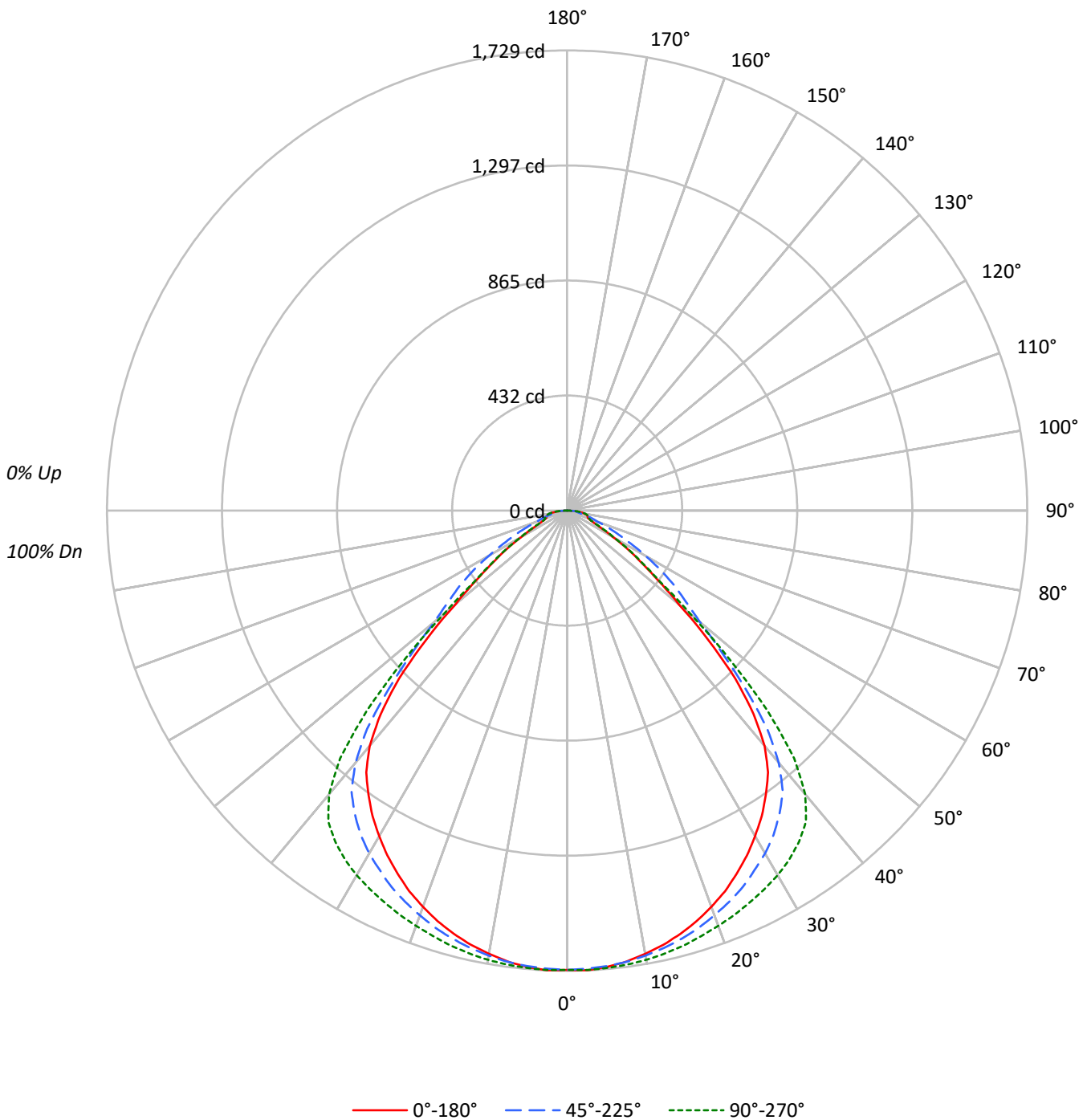
**Summary**

Lumens per Lamp: 1350 (4 lamps)  
Luminaire Lumens: 3733.3 lumens  
Efficiency: 69.1%  
Efficacy: 67.5 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.31  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 55.3  
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	82	82	82	82	80	80	80	80	77	77	77	74	74	74	71	71	71	69				
1	76	74	71	69	75	72	70	68	69	67	66	67	65	64	64	63	62	61				
2	71	66	62	59	69	65	61	58	62	59	57	60	58	55	58	56	54	53				
3	65	59	54	50	64	58	54	50	56	52	49	54	51	48	53	50	47	46				
4	61	53	48	44	59	52	47	44	51	46	43	49	45	42	48	45	42	41				
5	56	48	43	39	55	48	42	38	46	42	38	45	41	38	44	40	37	36				
6	52	44	38	34	51	43	38	34	42	37	34	41	37	34	40	36	33	32				
7	49	40	35	31	48	40	34	31	39	34	30	38	33	30	37	33	30	29				
8	45	37	31	28	44	36	31	28	36	31	28	35	30	27	34	30	27	26				
9	43	34	29	25	42	34	29	25	33	28	25	32	28	25	31	28	25	24				
10	40	31	26	23	39	31	26	23	30	26	23	30	26	23	29	25	23	22				

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

	0°	45°	90°
0°	4645	4645	4645
5°	4649	4641	4660
10°	4621	4640	4683
15°	4586	4639	4714
20°	4536	4633	4754
25°	4472	4635	4822
30°	4387	4621	4916
35°	4277	4570	4990
40°	4054	4345	4886
45°	3398	3608	4053
50°	2294	2713	2529
55°	1590	2313	1628
60°	1071	1835	1109
65°	732	1356	751
70°	661	952	692
75°	832	780	884
80°	1007	682	1069
85°	1142	1019	1204



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	163.6	4.4	3.0	0°	1726	1726	1726	1726	1726	
10°-20°	470.6	12.6	8.7	5°	1721	1719	1718	1722	1725	163
20°-30°	720.5	19.3	13.3	15°	1646	1650	1665	1683	1692	464
30°-40°	872.1	23.4	16.2	25°	1506	1521	1561	1604	1624	694
40°-50°	742.1	19.9	13.7	35°	1302	1323	1391	1480	1519	811
50°-60°	396.5	10.6	7.3	45°	893	933	948	1061	1065	671
60°-70°	206.9	5.5	3.8	55°	339	446	493	453	347	314
70°-80°	117.1	3.1	2.2	65°	115	239	213	242	118	123
80°-90°	43.8	1.2	0.8	75°	80	146	75	147	85	82
90°-100°	0.0	0.0	0.0	85°	37	52	33	49	39	39
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°	1354.7	36.3	25.1							
0°-40°	2226.9	59.6	41.2							
0°-60°	3365.4	90.1	62.3							
0°-90°	3733.3	100.0	69.1							
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°	3733.3	100.0	69.1							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1726	1726	1726	1726	1726
2.5°	1729	1725	1723	1725	1728
5°	1721	1719	1718	1722	1725
7.5°	1709	1708	1710	1717	1721
10°	1691	1691	1698	1708	1714
12.5°	1671	1673	1683	1697	1704
15°	1646	1650	1665	1683	1692
17.5°	1618	1623	1644	1666	1676
20°	1584	1594	1618	1648	1660
22.5°	1549	1558	1591	1628	1644
25°	1506	1521	1561	1604	1624
27.5°	1462	1480	1524	1579	1604
30°	1412	1435	1487	1551	1582
32.5°	1361	1381	1444	1521	1554
35°	1302	1323	1391	1480	1519
37.5°	1240	1258	1331	1427	1474
40°	1154	1173	1237	1352	1391
42.5°	1037	1073	1112	1227	1262
45°	893	933	948	1061	1065
47.5°	720	783	787	857	831
50°	548	637	648	679	604
52.5°	430	524	561	555	441
55°	339	446	493	453	347
57.5°	270	375	416	381	275
60°	199	325	341	324	206
62.5°	149	277	270	278	155
65°	115	239	213	242	118
67.5°	94	204	164	215	96
70°	84	180	121	192	88
72.5°	81	166	98	169	87
75°	80	146	75	147	85
77.5°	73	120	56	120	77
80°	65	91	44	93	69
82.5°	56	68	37	68	56
85°	37	52	33	49	39
87.5°	19	29	20	27	19
90°	0	0	0	0	0

(END OF REPORT)