

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: P30954

Luminaire Tested: **2GC8-417A19/156-UNV-EB81**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: P30954  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2GC8-417A19/156-UNV-EB81  
Description: METALUX 2' X 2' SPECIFICATION GRADE RECESSED FLUORESCENT TROFFER  
WITH HIGH REFLECTANCE WHITE INTERIOR FINISH AND ACRYLIC PRISMATIC LENS, TYPE #19,  
0.156" THICK  
Light Source: (4) T8 LINEAR FLUORESCENT LAMPS 3500K  
Ballast/Driver: -  
QUICKTRONICS QTP4x32T8/UNV ISN-SC

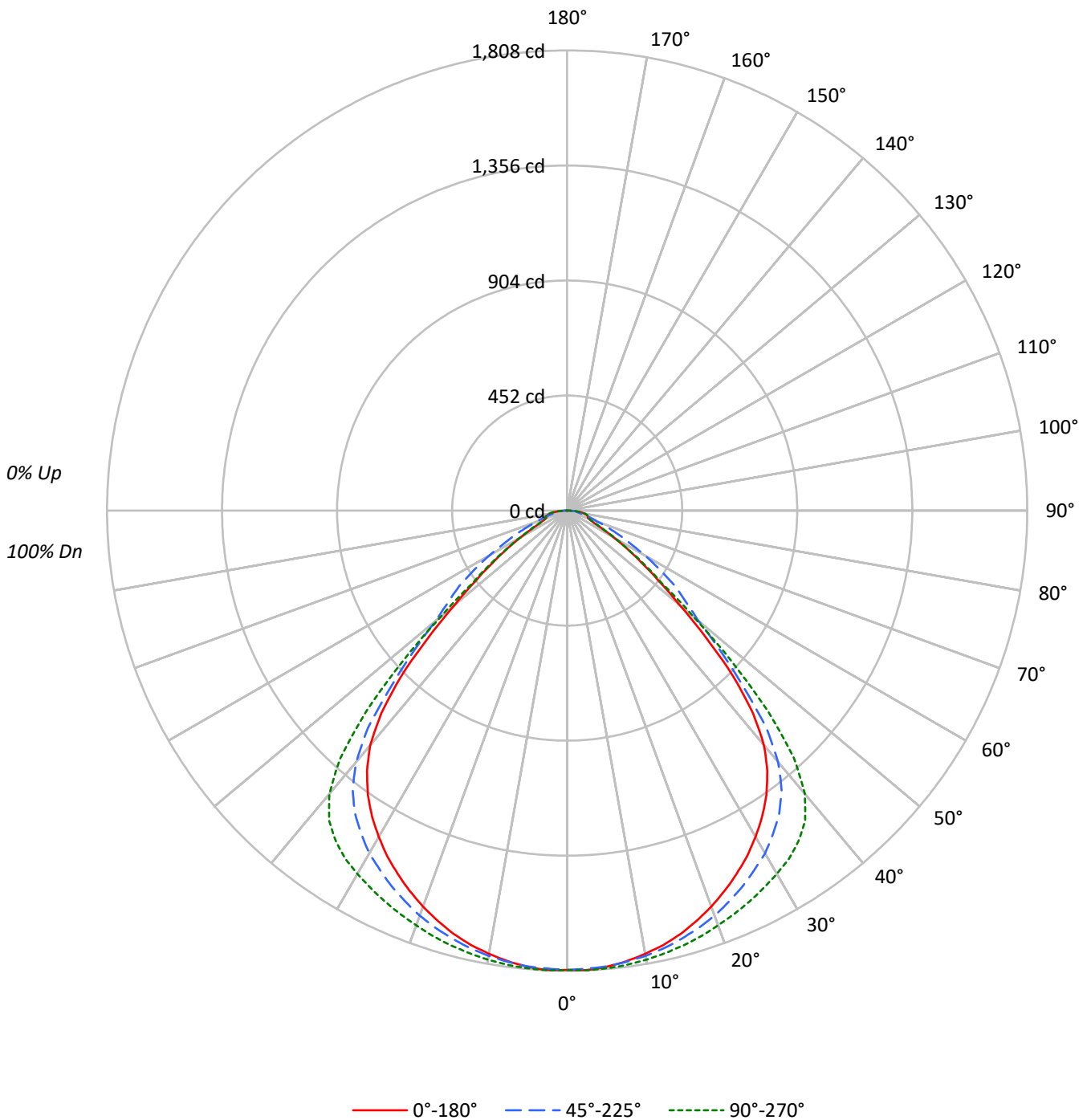
**Summary**

Lumens per Lamp: 1350 (4 lamps)  
Luminaire Lumens: 3900.6 lumens  
Efficiency: 72.2%  
Efficacy: 70.4 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.36 / 1.31  
Luminous Opening: Rectangular (W 1.75' x L: 1.75' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 55.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	86	86	86	86	84	84	84	84	80	80	80		77	77	77		74	74	74	72
1	80	77	74	72	78	75	73	71	72	70	69		70	68	67		67	66	65	63
2	74	69	65	61	72	68	64	60	65	62	59		63	60	58		61	58	57	55
3	68	62	57	53	67	61	56	52	59	55	51		57	53	50		55	52	50	48
4	63	56	50	46	62	55	50	46	53	49	45		51	48	44		50	47	44	42
5	59	50	45	40	57	50	44	40	48	43	40		47	43	39		46	42	39	38
6	55	46	40	36	53	45	40	36	44	39	35		43	38	35		42	38	35	34
7	51	42	36	32	50	41	36	32	40	35	32		39	35	32		38	34	31	30
8	47	38	33	29	46	38	33	29	37	32	29		36	32	29		35	31	28	27
9	44	36	30	26	44	35	30	26	34	29	26		34	29	26		33	29	26	25
10	42	33	28	24	41	33	27	24	32	27	24		31	27	24		31	27	24	22

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

	0°	45°	90°
0°	6344	6344	6344
5°	6347	6344	6368
10°	6310	6338	6396
15°	6266	6335	6433
20°	6194	6336	6486
25°	6108	6321	6573
30°	6007	6311	6688
35°	5857	6234	6801
40°	5520	5914	6667
45°	4603	4861	5552
50°	3144	3674	3527
55°	2181	3174	2280
60°	1476	2467	1518
65°	990	1846	1048
70°	904	1295	945
75°	1141	1059	1195
80°	1397	931	1457
85°	1653	1371	1734



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	171.1	4.4	3.2	0°	1805	1805	1805	1805	1805	
10°-20°	492.1	12.6	9.1	5°	1799	1798	1798	1801	1805	171
20°-30°	752.7	19.3	13.9	15°	1722	1726	1741	1759	1768	485
30°-40°	910.5	23.3	16.9	25°	1575	1590	1630	1674	1695	726
40°-50°	773.7	19.8	14.3	35°	1365	1386	1453	1541	1585	849
50°-60°	415.4	10.7	7.7	45°	926	971	978	1103	1117	697
60°-70°	216.4	5.5	4.0	55°	356	467	518	475	372	329
70°-80°	122.9	3.2	2.3	65°	119	252	222	253	126	130
80°-90°	45.7	1.2	0.8	75°	84	155	78	154	88	86
90°-100°	0.0	0.0	0.0	85°	41	54	34	50	43	41
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°	1415.9	36.3	26.2							
0°-40°	2326.5	59.6	43.1							
0°-60°	3515.6	90.1	65.1							
0°-90°	3900.6	100.0	72.2							
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°	3900.6	100.0	72.2							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1805	1805	1805	1805	1805
2.5°	1807	1803	1801	1804	1808
5°	1799	1798	1798	1801	1805
7.5°	1786	1785	1788	1795	1800
10°	1768	1770	1776	1786	1792
12.5°	1748	1750	1761	1774	1781
15°	1722	1726	1741	1759	1768
17.5°	1690	1699	1719	1741	1753
20°	1656	1668	1694	1721	1734
22.5°	1617	1632	1662	1698	1715
25°	1575	1590	1630	1674	1695
27.5°	1531	1548	1592	1647	1672
30°	1480	1501	1555	1617	1648
32.5°	1426	1445	1506	1584	1622
35°	1365	1386	1453	1541	1585
37.5°	1292	1318	1384	1487	1536
40°	1203	1236	1289	1406	1453
42.5°	1081	1118	1159	1273	1319
45°	926	971	978	1103	1117
47.5°	741	821	818	899	875
50°	575	665	672	717	645
52.5°	454	552	586	582	469
55°	356	467	518	475	372
57.5°	279	395	431	396	286
60°	210	339	351	337	216
62.5°	159	292	278	291	166
65°	119	252	222	253	126
67.5°	100	213	171	224	101
70°	88	189	126	200	92
72.5°	85	174	101	179	90
75°	84	155	78	154	88
77.5°	77	127	59	126	80
80°	69	96	46	98	72
82.5°	57	71	38	70	58
85°	41	54	34	50	43
87.5°	18	32	20	29	20
90°	0	0	0	0	0

(END OF REPORT)