

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P229743

Luminaire Tested: **24RLN-LD5-67-UNV-L840-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229743  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36038)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-67-UNV-L840-CD1-U  
Description: METALUX 2X4 RLN LED TROFFER  
Light Source: (252)4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

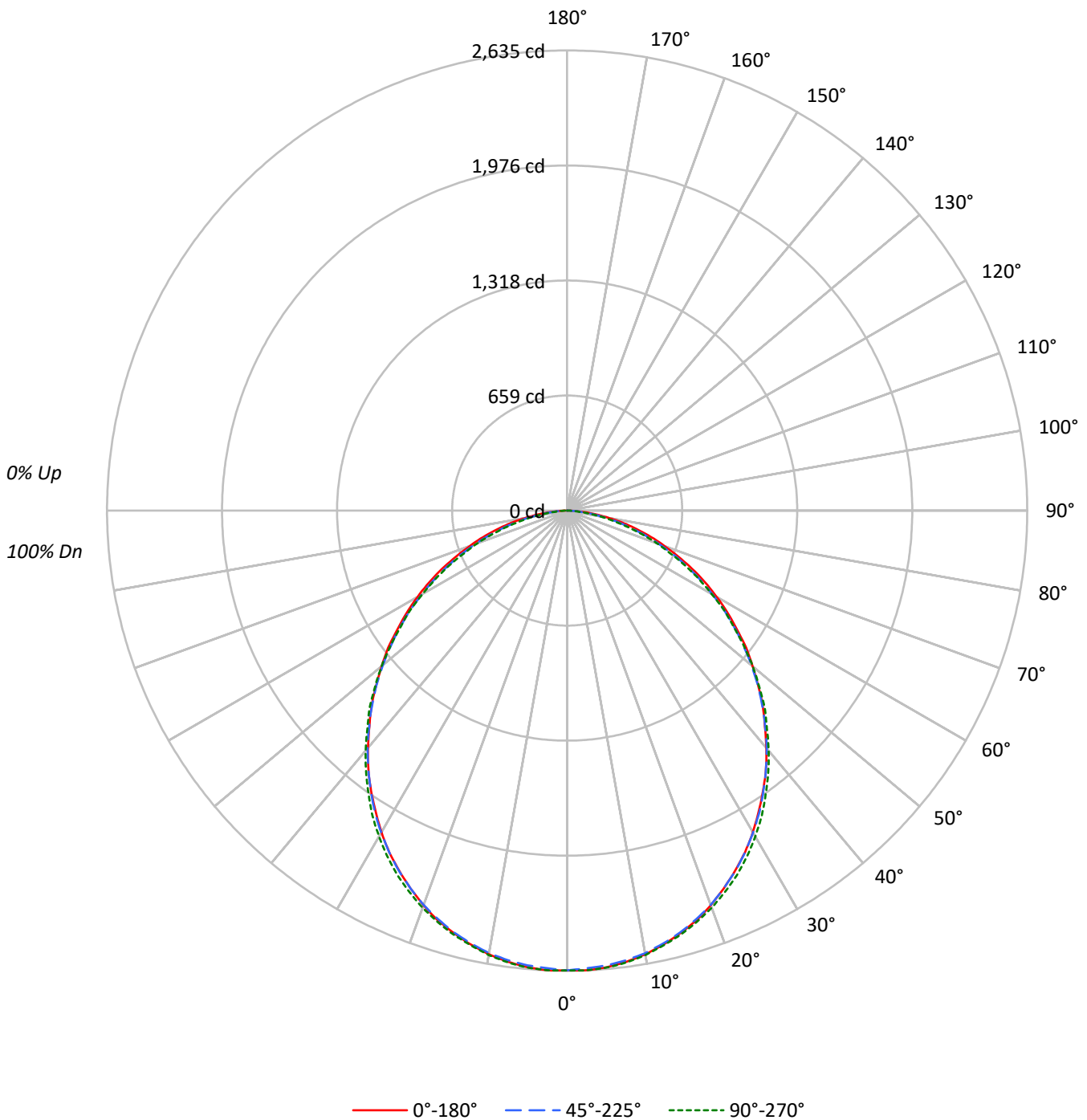
Lumens per Lamp: N/A  
Luminaire Lumens: 6755.1 lumens  
Efficiency: N/A  
Efficacy: 125.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.22 / 1.31  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 53.9  
Input Voltage (V): 120  
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	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	109	105	101	97	107	102	99	95	98	95	92		94	92	89		91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77		83	79	75		80	77	73	71
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71	67	63	60
4	84	72	63	57	81	71	63	56	68	61	56		66	60	55		64	58	54	52
5	77	64	56	49	75	63	55	49	61	54	48		59	53	48		57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42		54	47	42		52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38		49	42	37		48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34		45	38	34		44	38	33	32
9	58	44	36	31	56	44	36	31	43	36	31		42	35	30		41	35	30	28
10	54	41	33	28	53	40	33	28	39	33	28		39	32	28		38	32	28	26

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

	0°	45°	90°
0°	4033	4033	4033
5°	4035	4019	4038
10°	4012	4002	4019
15°	3973	3966	3986
20°	3921	3917	3945
25°	3846	3850	3889
30°	3762	3766	3811
35°	3659	3664	3707
40°	3548	3556	3590
45°	3434	3425	3466
50°	3301	3281	3306
55°	3167	3127	3115
60°	3034	2942	2929
65°	2865	2742	2703
70°	2655	2494	2446
75°	2440	2201	2088
80°	2137	1837	1668
85°	1756	1271	1009



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	248.8	3.7
10°-20°	706.7	10.5
20°-30°	1051.5	15.6
30°-40°	1228.5	18.2
40°-50°	1221.2	18.1
50°-60°	1049.3	15.5
60°-70°	753.6	11.2
70°-80°	401.4	5.9
80°-90°	94.0	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2007.0	29.7
0°-40°	3235.5	47.9
0°-60°	5506.1	81.5
0°-90°	6755.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6755.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2633	2633	2633	2633	2633	
5°	2624	2620	2614	2622	2626	249
15°	2505	2505	2501	2510	2514	707
25°	2276	2276	2278	2295	2301	1048
35°	1957	1953	1959	1980	1983	1224
45°	1585	1572	1581	1590	1600	1221
55°	1186	1171	1171	1171	1167	1064
65°	790	767	756	748	746	782
75°	412	389	372	361	353	439
85°	100	85	72	60	57	117
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2632.9	2632.9	2632.9	2632.9	2632.9
2.5°	2635.0	2630.8	2622.3	2632.9	2635.0
5°	2624.4	2620.1	2613.8	2622.3	2626.5
7.5°	2605.3	2601.0	2596.8	2605.3	2609.5
10°	2579.8	2577.6	2573.4	2584.0	2584.0
12.5°	2545.8	2543.6	2539.4	2550.0	2550.0
15°	2505.4	2505.4	2501.1	2509.6	2513.9
17.5°	2460.8	2458.6	2454.4	2465.0	2469.3
20°	2405.5	2405.5	2403.4	2416.1	2420.4
22.5°	2341.8	2341.8	2341.8	2358.8	2363.0
25°	2275.9	2275.9	2278.0	2295.0	2301.4
27.5°	2205.8	2203.6	2205.8	2224.9	2231.3
30°	2127.1	2122.9	2129.3	2148.4	2154.8
32.5°	2042.1	2037.9	2048.5	2065.5	2074.0
35°	1957.1	1952.9	1959.3	1980.5	1982.6
37.5°	1870.0	1859.4	1870.0	1889.1	1891.3
40°	1774.4	1765.9	1778.6	1787.1	1795.6
42.5°	1676.6	1672.4	1678.8	1693.6	1693.6
45°	1585.3	1572.5	1581.0	1589.5	1600.1
47.5°	1483.3	1476.9	1481.1	1487.5	1491.8
50°	1385.5	1374.9	1377.0	1383.4	1387.6
52.5°	1294.1	1272.9	1272.9	1277.1	1277.1
55°	1185.8	1170.9	1170.9	1170.9	1166.6
57.5°	1090.1	1071.0	1068.9	1068.9	1068.9
60°	990.3	966.9	960.5	960.5	956.3
62.5°	890.4	869.1	860.6	852.1	852.1
65°	790.5	767.1	756.5	748.0	745.9
67.5°	688.5	671.5	658.8	648.1	637.5
70°	592.9	573.8	556.8	546.1	546.1
72.5°	503.6	482.4	465.4	452.6	446.3
75°	412.3	388.9	371.9	361.3	352.8
77.5°	331.5	306.0	289.0	274.1	265.6
80°	242.3	223.1	208.3	193.4	189.1
82.5°	167.9	153.0	136.0	125.4	121.1
85°	99.9	85.0	72.3	59.5	57.4
87.5°	40.4	29.8	23.4	23.4	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)