

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: P229856

Luminaire Tested: **24RLN-LD5-31-UNV-L840-CD1-SVPD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229856  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36062)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-31-UNV-L840-CD1-SVPD1-U  
Description: METALUX 2X4 RLN LED TROFFER WITH SENSOR  
Light Source: (252)4000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3140.0 lumens  
Efficiency: N/A  
Efficacy: 137.1 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

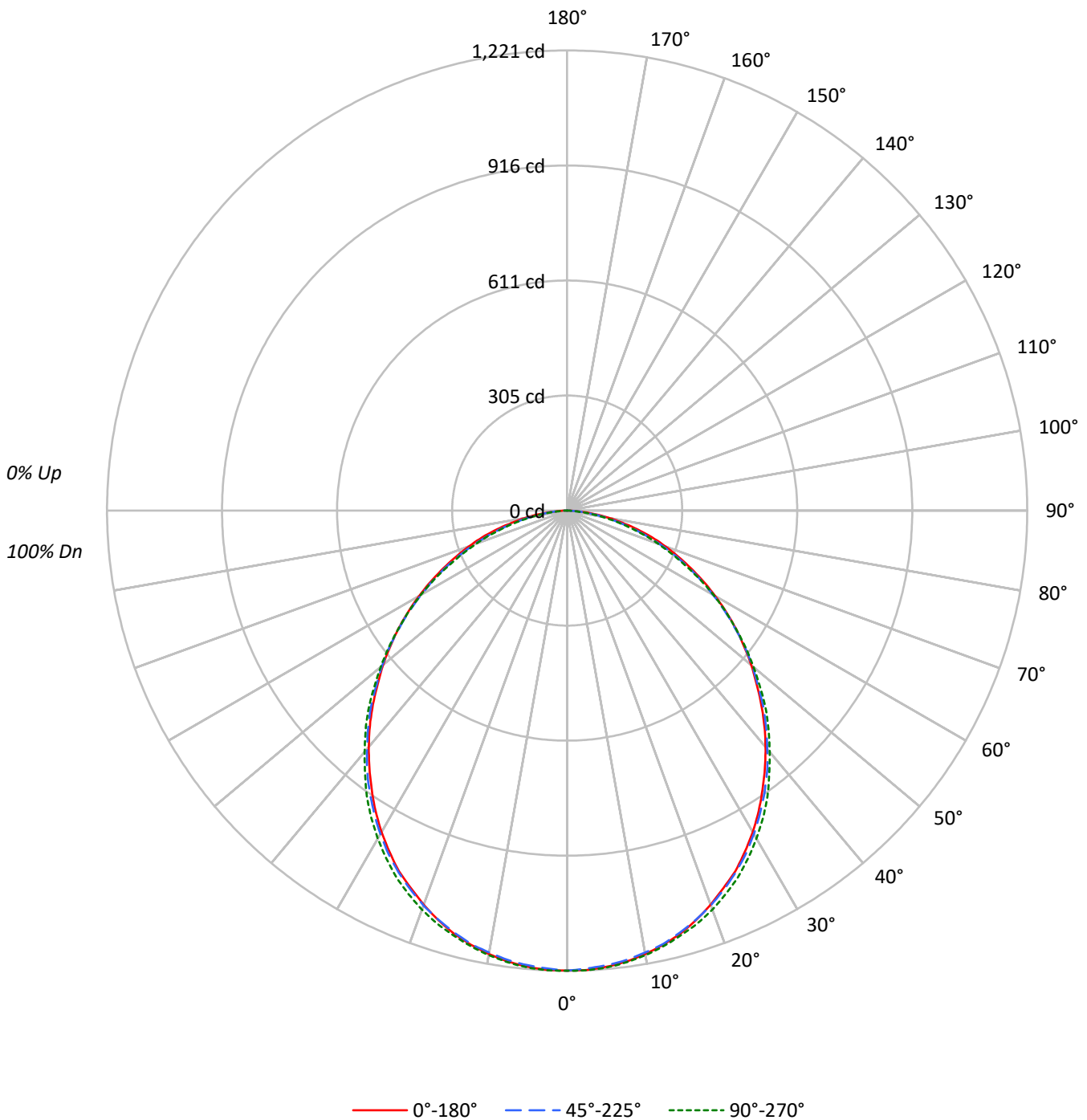
Input Watts (W): 22.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P229856

CATALOG NUMBER: 24RLN-LD5-31-UNV-L840-CD1-SVPD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P229856

CATALOG NUMBER: 24RLN-LD5-31-UNV-L840-CD1-SVPD1-U

**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	76	73	71
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71	66	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	31
9	58	44	36	31	56	44	36	31	43	35	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°	1870	1870	1870
5°	1868	1862	1871
10°	1858	1852	1863
15°	1842	1838	1850
20°	1814	1817	1837
25°	1784	1790	1813
30°	1742	1753	1777
35°	1690	1707	1733
40°	1637	1651	1671
45°	1579	1594	1616
50°	1520	1527	1539
55°	1461	1453	1458
60°	1391	1369	1375
65°	1312	1283	1261
70°	1240	1173	1146
75°	1142	1042	1006
80°	1006	882	829
85°	791	615	457



TEST NUMBER: P229856

CATALOG NUMBER: 24RLN-LD5-31-UNV-L840-CD1-SVPD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.2	3.7
10°-20°	327.6	10.4
20°-30°	488.3	15.6
30°-40°	570.9	18.2
40°-50°	566.9	18.1
50°-60°	486.9	15.5
60°-70°	350.7	11.2
70°-80°	188.9	6.0
80°-90°	44.5	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°	931.2	29.7
0°-40°	1502.1	47.8
0°-60°	2555.9	81.4
0°-90°	3140.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3140.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1221	1221	1221	1221	1221	
5°	1215	1214	1211	1215	1217	115
15°	1162	1159	1159	1166	1167	327
25°	1056	1052	1059	1070	1073	485
35°	904	903	913	923	927	565
45°	729	727	736	742	746	562
55°	547	542	544	547	546	488
65°	362	356	354	351	348	360
75°	193	181	176	171	170	204
85°	45	41	35	28	26	54
90°	0	0	0	0	0	



TEST NUMBER: P229856

CATALOG NUMBER: 24RLN-LD5-31-UNV-L840-CD1-SVPD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1220.9	1220.9	1220.9	1220.9	1220.9
2.5°	1219.9	1218.9	1215.9	1219.9	1220.9
5°	1214.9	1213.9	1210.9	1214.9	1216.9
7.5°	1206.9	1204.9	1202.9	1206.9	1208.9
10°	1194.9	1192.9	1190.9	1195.9	1197.9
12.5°	1179.9	1177.9	1177.9	1181.9	1183.9
15°	1161.9	1158.9	1158.9	1165.9	1166.9
17.5°	1138.9	1136.9	1137.9	1145.9	1148.9
20°	1112.9	1111.9	1114.9	1123.9	1126.9
22.5°	1083.9	1082.9	1087.9	1098.9	1100.9
25°	1055.9	1051.9	1058.9	1069.9	1072.9
27.5°	1020.9	1017.9	1026.9	1036.9	1039.9
30°	984.9	981.9	990.9	1001.9	1004.9
32.5°	945.9	943.9	952.9	963.9	966.9
35°	903.9	902.9	912.9	922.9	926.9
37.5°	861.9	860.9	871.9	879.9	880.9
40°	818.9	816.9	825.9	834.9	835.9
42.5°	774.9	771.9	781.9	788.9	791.9
45°	728.9	726.9	735.9	741.9	745.9
47.5°	681.9	681.9	686.9	693.9	694.9
50°	637.9	634.9	640.9	644.9	645.9
52.5°	591.9	588.9	593.9	594.9	596.9
55°	547.0	542.0	544.0	547.0	546.0
57.5°	500.0	492.0	496.0	496.0	498.0
60°	454.0	447.0	447.0	447.0	449.0
62.5°	408.0	401.0	401.0	400.0	399.0
65°	362.0	356.0	354.0	351.0	348.0
67.5°	318.0	311.0	307.0	303.0	300.0
70°	277.0	265.0	262.0	256.0	256.0
72.5°	236.0	224.0	218.0	214.0	213.0
75°	193.0	181.0	176.0	171.0	170.0
77.5°	151.0	143.0	135.0	131.0	129.0
80°	114.0	107.0	100.0	93.0	94.0
82.5°	78.0	71.0	66.0	60.0	58.0
85°	45.0	41.0	35.0	28.0	26.0
87.5°	19.0	14.0	10.0	10.0	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)