

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: P229716

Luminaire Tested: **24RLN-LD5-31-UNV-L830-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229716  
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-LD5-31-UNV-L830-CD1-U  
Description: METALUX 2X4 RLN LED TROFFER  
Light Source: (252)3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3052.0 lumens  
Efficiency: N/A  
Efficacy: 133.3 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

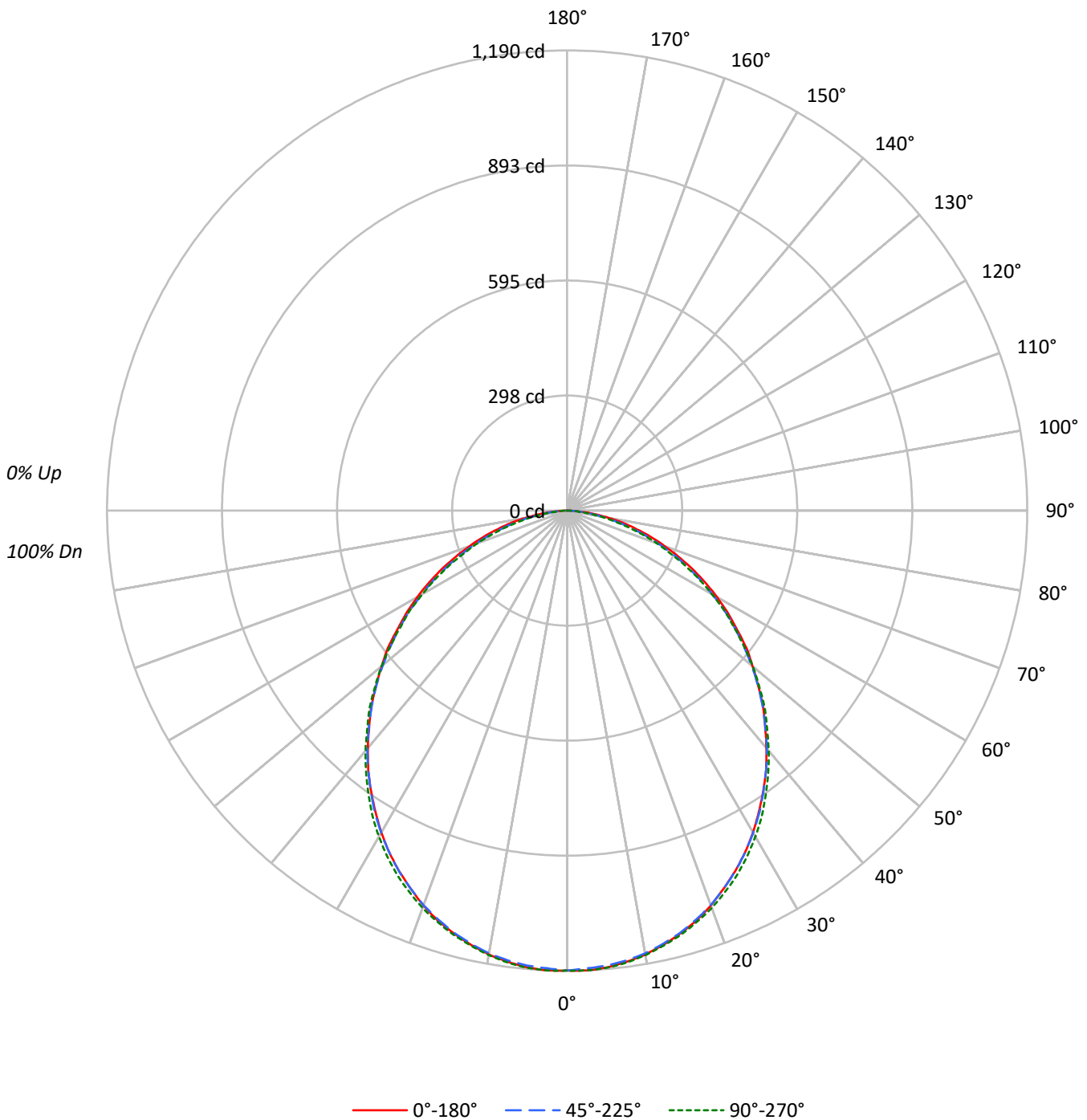
Input Watts (W): 22.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1822	1822	1822
5°	1823	1816	1825
10°	1813	1808	1816
15°	1795	1792	1801
20°	1771	1770	1783
25°	1738	1739	1757
30°	1700	1701	1722
35°	1653	1655	1675
40°	1603	1607	1622
45°	1551	1547	1566
50°	1492	1482	1494
55°	1431	1413	1408
60°	1371	1329	1323
65°	1295	1239	1221
70°	1200	1126	1105
75°	1103	994	943
80°	966	830	753
85°	793	573	455



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.4	3.7
10°-20°	319.3	10.5
20°-30°	475.1	15.6
30°-40°	555.1	18.2
40°-50°	551.8	18.1
50°-60°	474.1	15.5
60°-70°	340.5	11.2
70°-80°	181.3	5.9
80°-90°	42.5	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°	906.8	29.7
0°-40°	1461.8	47.9
0°-60°	2487.7	81.5
0°-90°	3052.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3052.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1190	1190	1190	1190	1190	
5°	1186	1184	1181	1185	1187	113
15°	1132	1132	1130	1134	1136	319
25°	1028	1028	1029	1037	1040	474
35°	884	882	885	895	896	553
45°	716	710	714	718	723	551
55°	536	529	529	529	527	481
65°	357	347	342	338	337	353
75°	186	176	168	163	159	198
85°	45	38	33	27	26	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1189.6	1189.6	1189.6	1189.6	1189.6
2.5°	1190.5	1188.6	1184.8	1189.6	1190.5
5°	1185.7	1183.8	1180.9	1184.8	1186.7
7.5°	1177.1	1175.2	1173.2	1177.1	1179.0
10°	1165.6	1164.6	1162.7	1167.5	1167.5
12.5°	1150.2	1149.2	1147.3	1152.1	1152.1
15°	1132.0	1132.0	1130.0	1133.9	1135.8
17.5°	1111.8	1110.8	1108.9	1113.7	1115.6
20°	1086.8	1086.8	1085.9	1091.6	1093.6
22.5°	1058.0	1058.0	1058.0	1065.7	1067.6
25°	1028.3	1028.3	1029.2	1036.9	1039.8
27.5°	996.6	995.6	996.6	1005.2	1008.1
30°	961.1	959.1	962.0	970.7	973.5
32.5°	922.7	920.7	925.5	933.2	937.1
35°	884.3	882.3	885.2	894.8	895.8
37.5°	844.9	840.1	844.9	853.5	854.5
40°	801.7	797.8	803.6	807.4	811.3
42.5°	757.5	755.6	758.5	765.2	765.2
45°	716.2	710.5	714.3	718.2	723.0
47.5°	670.2	667.3	669.2	672.1	674.0
50°	626.0	621.2	622.1	625.0	626.9
52.5°	584.7	575.1	575.1	577.0	577.0
55°	535.7	529.0	529.0	529.0	527.1
57.5°	492.5	483.9	482.9	482.9	482.9
60°	447.4	436.8	434.0	434.0	432.0
62.5°	402.3	392.7	388.8	385.0	385.0
65°	357.2	346.6	341.8	338.0	337.0
67.5°	311.1	303.4	297.6	292.8	288.0
70°	267.9	259.2	251.5	246.7	246.7
72.5°	227.5	217.9	210.3	204.5	201.6
75°	186.3	175.7	168.0	163.2	159.4
77.5°	149.8	138.3	130.6	123.9	120.0
80°	109.5	100.8	94.1	87.4	85.4
82.5°	75.8	69.1	61.4	56.6	54.7
85°	45.1	38.4	32.6	26.9	25.9
87.5°	18.2	13.4	10.6	10.6	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)