

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: P229816

Luminaire Tested: **24RLN-LD5-31-RDP-UNV-L935-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P229816  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P36059)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24RLN-LD5-31-RDP-UNV-L935-CD1-U  
Description: METALUX 2X4 RLN LED TROFFER WITH RDP LENS  
Light Source: (252)3500K CCT, 90 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2270.0 lumens  
Efficiency: N/A  
Efficacy: 99.1 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.38  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

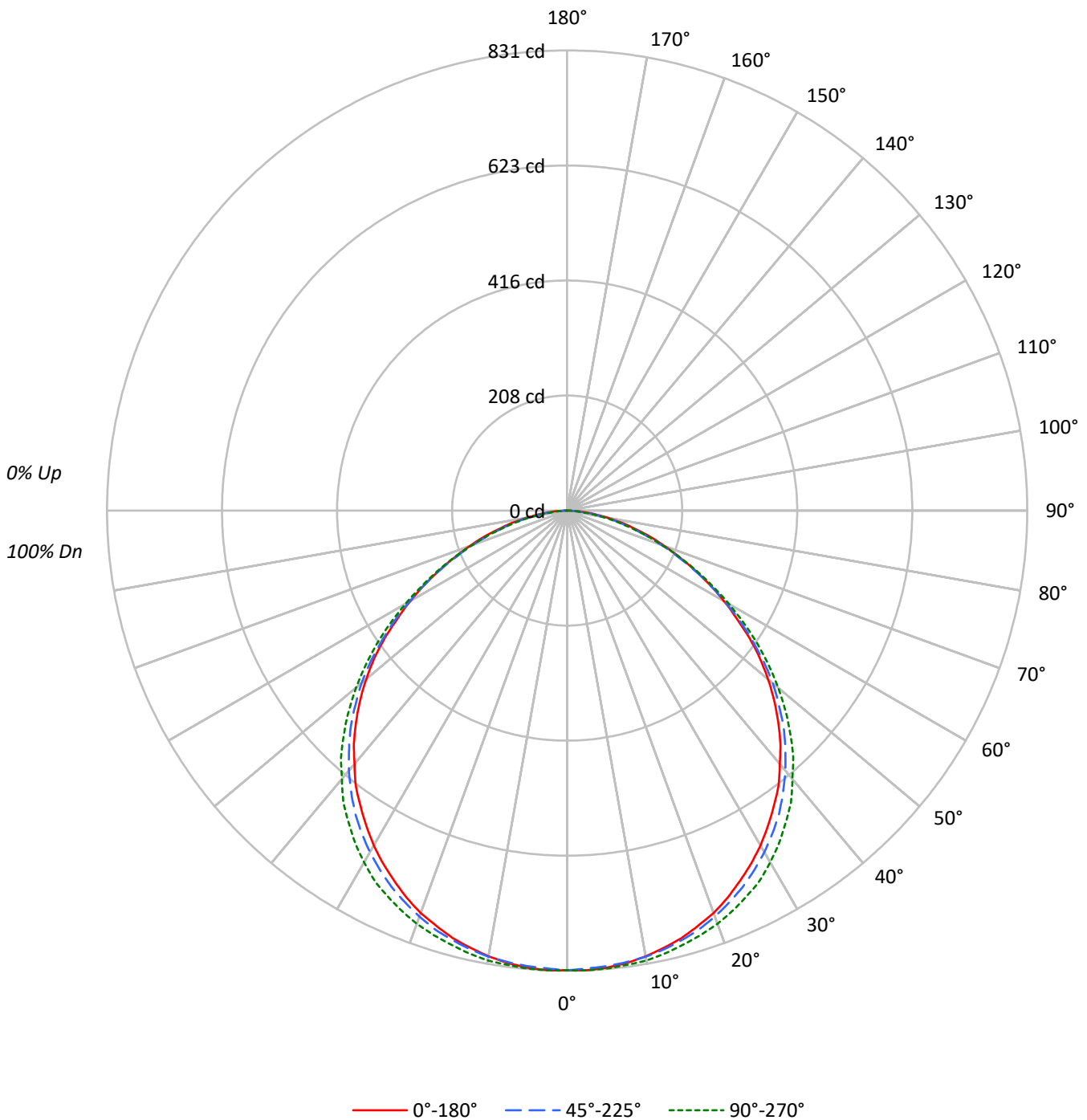
Input Watts (W): 22.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	90	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	66	63	60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	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	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	1271	1271	1271
5°	1274	1270	1276
10°	1271	1272	1283
15°	1267	1273	1286
20°	1260	1272	1294
25°	1247	1268	1298
30°	1235	1260	1298
35°	1217	1248	1287
40°	1195	1226	1265
45°	1168	1198	1235
50°	1129	1155	1186
55°	1074	1088	1120
60°	1002	1008	1034
65°	921	914	936
70°	837	814	818
75°	744	703	698
80°	646	577	562
85°	529	409	318



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.7	3.5
10°-20°	227.0	10.0
20°-30°	346.4	15.3
30°-40°	417.7	18.4
40°-50°	425.9	18.8
50°-60°	364.5	16.1
60°-70°	251.1	11.1
70°-80°	128.7	5.7
80°-90°	30.0	1.3
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°	652.1	28.7
0°-40°	1069.8	47.1
0°-60°	1860.2	81.9
0°-90°	2270.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2270.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	828	827	826	828	830	79
15°	799	798	803	809	811	225
25°	738	741	750	763	768	340
35°	651	654	667	682	688	407
45°	539	540	553	567	570	415
55°	402	400	407	416	419	359
65°	254	248	252	254	258	252
75°	126	121	119	119	118	136
85°	30	27	23	21	18	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	830.1	830.1	830.1	830.1	830.1
2.5°	831.0	829.3	827.6	829.3	831.0
5°	828.4	826.7	825.8	828.4	830.1
7.5°	824.1	822.4	822.4	825.8	827.6
10°	817.2	816.4	818.1	821.5	825.0
12.5°	808.6	808.6	811.2	815.5	819.0
15°	799.1	798.3	802.6	808.6	811.2
17.5°	786.2	787.1	793.1	800.0	803.5
20°	773.3	774.2	780.2	789.7	794.0
22.5°	756.9	758.7	765.6	777.6	781.9
25°	738.0	740.6	750.1	763.0	768.1
27.5°	719.1	721.6	732.0	746.6	753.5
30°	698.4	701.8	712.2	727.7	733.7
32.5°	675.1	677.7	690.6	706.1	712.2
35°	651.0	653.6	667.4	682.0	688.1
37.5°	626.9	626.9	640.7	657.9	663.9
40°	597.6	598.5	613.1	629.5	632.9
42.5°	570.1	570.1	583.0	598.5	604.5
45°	539.1	539.9	552.9	566.6	570.1
47.5°	507.2	507.2	518.4	531.3	534.8
50°	473.6	471.9	484.8	495.2	497.7
52.5°	439.2	436.6	446.9	455.5	459.0
55°	402.2	399.6	407.3	415.9	419.4
57.5°	363.4	360.0	368.6	376.3	378.0
60°	327.2	322.1	329.0	333.3	337.6
62.5°	291.1	285.0	290.2	292.8	296.2
65°	254.0	248.0	252.3	254.0	258.3
67.5°	218.7	214.4	215.3	217.9	219.6
70°	186.9	181.7	181.7	181.7	182.6
72.5°	157.6	149.8	149.0	149.8	149.8
75°	125.7	120.6	118.8	118.8	118.0
77.5°	100.8	93.9	93.0	91.3	89.6
80°	73.2	67.2	65.4	64.6	63.7
82.5°	50.8	45.6	43.9	42.2	39.6
85°	30.1	26.7	23.3	20.7	18.1
87.5°	11.2	10.3	8.6	7.8	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)